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ABSTRACT

An overview of Michigan State University's (MSU) Refocusing, Rebalancing, and Refining (R3) process is presented. R3 is a concerted effort to assure that MSU is doing the right things at the right time, addressing the changes which are exerting powerful influences on MSU's future. It is also a document describing the strategic planning process. The participation of support service and academic program units, all faculty and staff, students, and representatives from various constituencies which MSU serves is necessary for a successful university-wide process. The impetus for R3, its goals, the status of the R3 document, the status of the R3 process, and future directions for the process of R3 are described. Ten sections look at: vision in planning--refocusing, rebalancing, and refining; the state of the university; the challenge of change; the external environmental context for R3; the internal environment context for R3; the principles of R3; outcomes and expectations of R3; R3 evaluations, projects, proposals; the self-study framework; and review of university goals and unit plans. Five attachments making up the bulk of the document provide information in the following areas: the universities and the environmental tendencies affecting their constituents; financial variables, trends, and 1989-1990 preliminary budget considerations; self-assessment framework and general issues for study and deliberation; university goals, mission statement, and general fund budget planning principles; and budget and planning accomplishments and events: the R3 process. (SM)

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R³ The Refocusing, Rebalancing, and Refining of Michigan State University

Internal Discussion Paper

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Summary and Overview

Michigan State University is again engaged in a long-range strategic planning process that will help the University carry out its mission efficiently and effectively and demonstrate its readiness to change and improve. We call this process "Refocusing, Rebalancing, and Refining" (R^3). R^3 is a new, concerted effort to assure that the University is "doing the right things, doing things right, at the right time in our history." It is an attempt to address intentionally the changes which are exerting powerful influences on the future of our University. R^3 is a process. R^3 is also a document--a document that describes the strategic planning process that is R^3. Because the elucidation of the process will occur through a reading of the document, it is essential to provide a schema for the reading of the document. This summary and overview is such a schema. It describes the impetus for R^3, the goals of R^3, the status of the R^3 document, the status of the R^3 process, and future directions for the process of R^3.

Impetus for R^3

In 1989, the rate and nature of change on global, national, and regional fronts, and in economic, technological, and cultural arenas mandate corresponding changes by our universities. Michigan State University has to consider making extensive changes within existing contexts--as well as adding new contexts--to capture more fully the opportunities afforded by the artful blending of service, research, and teaching. Michigan State University particularly recognizes the need to pursue new directions in undergraduate education, to revitalize lifelong education, to advance excellent research and scholarly activity, to foster graduate and graduate-professional education, and to enhance public service by enabling the dissemination of knowledge. The long-range strategic plan--Refocusing, Rebalancing, and Refining--is an effort to address intentionally the changes that will be powerful influences on the future of this University. Without R^3, the tightening economic resources will lead to increased competition among departments and schools and between the academic and support service units for limited resources in efforts to maintain only the status quo. Without R^3 we will not be in a position to make the best use of new resources. R^3 will allow us to be poised to recognize and evaluate more sensibly, against a redesigned base, new opportunities and their multidimensional advantages.

R^3 is a process that acknowledges our responsibility to secure a University enlivened by our traditions in anticipation of contexts changing at an exponential rate. R^3 is a process that asserts both as a value and as purpose the requirements of vision and revision and disallows inertia as an option. Through R^3, which encompasses both continuity and change, we will reconfigure our traditions and build on this new foundation.

Goals of R^3

The goals of the University provide an intermediate definition of the University's purpose. Goals interpret and delineate the mission so that academic and support units can define their own roles and objectives and plan programs which are consistent with the mission of Michigan State University. University goals do not, however, simply restate the mission or express general values. Instead,

goals derive or flow from the mission and identify directions and intentions that broadly apply to the University as a whole. They guide the activities and the efforts of an institution for the shorter term and help establish priorities. The principle of extensive consultation with faculty, staff, and students also applies to the development of goals.

The process of refocusing, rebalancing, and refining must generate a creative and innovative reconfiguration of our academic culture to foster a University that is refocused in terms of priorities, rebalanced in consideration of the equilibrium between and among academic programs, and refined to create a more effective and efficient academic enterprise. Reconfiguring our academic enterprise refers to the activity of making innovative and significant reform in philosophy and attitude, policy and practice, and structure and organization. R^3 will also address the consequences of such redesign at each of these levels. Primary goals of R^3 are to enhance academic quality and to assure Michigan State University's position as a leading land-grant/AAU university. The set of University Goals, developed in 1984-85 and guided by the principle of extensive consultation, is included in Attachment D, Appendix II, of the R^3 document. It is anticipated that the R^3 dialogue will reassess this intermediate definition of the University mission and derive from it a broad set of enduring principles as well as a more particular set of objectives to be achieved. Such a review will be a critical event in the R^3 process.

Status of the R^3 Document

The R^3 document has undergone two major revisions of the internal discussion draft which was distributed for review to the University community in early May, 1988. Changes to the document have been made in conjunction with thoughtful feedback and review by members of the faculty, staff, student body, and administration. Such interaction and participation with members of the University community is an intentional component of the process to develop and articulate R^3.

The document consists of a Summary and Overview; a central section which defines R^3, provides the context, rationale, and principles for R^3, specifies the internal and external constraints of R^3, and sets forth a working agenda for the future of R^3; and 5 attachments which provide supporting documentation or lists for a) environmental tendencies, b) financial variables, c) self-assessment framework and general issues for study and deliberation, d) the statements of the University goals, mission, and budget planning principles, and e) budget and planning accomplishments and events in the R^3 process.

Status of the R^3 Process

The starting point for R^3 was to refocus our priorities and refine our academic enterprise for more effective and efficient outcomes. Rebalancing, an equilibrium of anticipated expenditures and revenues, has become necessary because of the current economic situation. Planning estimates for 1989-90 require revenue increases of approximately 5 percent to meet the critical needs of the University. At this time there is still uncertainty about the key General Fund revenue parameters (state appropriations, tuition, and fees) for 1989-1990. Nationally, the growth rate for the higher education enterprise is about 1 to 2 percent above the rate of inflation (projected to be 4 to 6 percent in 1989). In other words, an increase above current revenues of between 5 and 8 percent will be required to meet critical needs. Within this frame, R^3 becomes a way to manage the requisite internal reallocations.

Rebalancing has begun through an overall 5 percent reallocation for 1988-89. During this current year, rebalancing will continue and refocusing will begin as strategies for change evolve from a critical review of our programs, their effectiveness and productivity, and of the role and responsibilities of each unit within the University. Toward establishing a framework for evaluating both unit- and university-level plans, we are identifying general, immediate, and longer-range issues requiring broad deliberations.

We will build on a newly configured foundation through 5 developing platforms: CRUE (Council to Review Undergraduate Education), CORRAGE (Council On Reviewing Research And Graduate Education), PAIDEIA (Pluralism And Institutional Diversity: Excellence In Action), PLUS (Planning for a Lifelong University System) and AMPS (Administrative Management and Program Support). The identification of these platforms emphasizes the University's awareness of the need to pursue new directions in undergraduate education; to advance research and scholarly activity; to foster graduate and professional education; to foster pluralism with vigorous commitment and result-oriented activities; to revitalize lifelong education; to streamline and balance the effectiveness of processes and public service to promote the diffusion and transfer of knowledge for human benefit and economic development.

Future Directions for R^3

R^3 emphasizes that all aspects of the University be reconsidered - the relative purposes and roles within Michigan State University as well as relative positions within their national peer groups. To date, the University planning dialogue has been structured to rely on unit-level self-assessments as reviewed by the appropriate persons and the Provost or Vice-President for Finance and Operations within the formal planning process of Academic Program Planning and Review (APP&R) or Support Services Program Planning and Review (SSPP&R). As a natural extension of the existing planning process, R^3 requires a reconsideration of the University's goals and environmental assumptions toward the development of an appropriate "Strategic Vision" that can guide Michigan State University into the 21st century. This is a process of renewal. It will encompass both continuity and change as we reconfigure our traditions in acknowledgement of changing frameworks. Recognizing and identifying the characteristics of our own particular environment, and articulating as shared values the assumptions of these characteristics will provide a relational and referential frame for this process of renewal.

We shall plan in the surroundings of our ethos--the guiding principles of our academic enterprise. Discussions to date with the members of the University community have identified as values a University that is:

- multidimensionally excellent;
- multidisciplinary, built on excellent and strong departments and schools;
- integrated;
- humanitarian, caring;
- strongly coupled, internally and externally;
- built on current and selectively developed strengths;
- pluralistic and diverse;
- a learning environment built on new technologies; and
- more efficient and effective.

All these principles assume a certain involvement and empowerment of members of the University community in shaping Michigan State University.

The refocusing of our University will concentrate centrally on the activities related to University goals and environmental assumptions. Together we will work on the co-creation of a Strategic Vision. Through APP&R and SSPP&R activities, individual units will continue to develop ideas and options to address the current economic circumstances. Units will selectively consider a set of general issues and a self-study framework of planning heuristics within their department/school and college/Major Administrative Unit (MAU) as plans are proposed, formulated, and reviewed. Based on a variety of the best available economic projections, as well as the looming demographic changes, the probable need continues for reallocations of an additional 10 to 15 percent over a 3- to 4-year period.

A multi-year approach is called for as a longer planning and implementation horizon is necessary to liberate the potential for flexibility and creativity that is critical at this time. Because the magnitude of the required configurations will be difficult to meet, planning will lead to a more positive outcome if it is based on a long-range view which is not confined to a single year. Adjustments, positive or negative, will be commensurate with the R^3 approach.

As Michigan State University moves to reassess its priorities with regard to R^3, we must continue to direct careful attention to the identification, preservation, and extension of areas of institutional strength. As initiated in early 1988 through individual communication with each MAU administrator, the Provost and Vice-President for Finance and Operations will continue to review MAU-level proposals in an all-University context asking each dean, director, or support service administrator to consider further modifications as may be necessary. On the basis of subsequent modifications and refinements, the Provost and Vice-President for Finance and Operations will continue appropriate consultation with faculty, students, and staff in accordance with established procedures and in the spirit of constructive dialogue. Additionally, support service and academic administrators will continue the dialogue initiated in the 1988 cluster meetings between groupings of academic and support service administrators. Collaborative efforts between the academic and support service units will be a strong characteristic of R^3.

R^3 is a University-wide process, requiring the participation of both support service and academic program units, all faculty and staff, students, and representatives from the various constituencies which Michigan State University serves. With a clearer sense of ethos and better defined goals flowing from our mission, we will be far better positioned to respond to the challenges of budget constraints as well as to recognize the cooperative advantages of opportunities. Through our commitment to reconfiguring this University from a firm platform of shared values and collaborative efforts, we can construct a new and higher meaning from the most enduring contexts of our past.

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The Refocusing, Rebalancing, and Refining of Michigan State University

"The optimists among us, those with unfaltering faith in the power of ideas and in the capacity of people to use them, will look upon all we have done up until this day as a time of preparation for the major tasks remaining ahead."

-John Hannah, 1962

"We must make decisions that protect quality, that assure excellence, and that promise access in the future, as well as the present. Innovation and courage will be required, perhaps as never before."

-John DiBiaggio, 1988

Michigan State University is again in the challenging position of assessing its role in American higher education, its special responsibilities to the people of the state as their land-grant university, its unique strengths and opportunities for excellence, and its rise to prominence as a world-class university. A great public university is under a continuous obligation to evaluate itself so that it may relate effectively to changing societal needs while advancing knowledge within the frame of available resources. Change must be characterized by the deeply grounded optimism, innovation, and courage noted by our past and present presidents. Individually and as a University community, we must now look to the future with the "can do" attitude that has always characterized Michigan State University.

Vision in Planning: Refocusing, Rebalancing, and Refining

The process of renewal, John Gardner (1988) reminds us, encompasses both continuity and change: we reconfigure our traditions in acknowledgement of contexts changing at an exponential rate in order to secure a future enlivened by our heritages and anticipating yet other futures. It is our responsibility to assure such a dynamic system by asserting both as a value and a purpose the requirement of vision and revision, and by disallowing inertia as an option.

Michigan State University is again engaged in a long-range strategic planning process that will help the University carry out its mission efficiently and effectively and demonstrate its readiness to change and improve. The University has embarked on a new, concerted effort to assure that it is "doing the right things, doing things right, at the right time in our history." We call this process "Refocusing, Rebalancing, and Refining" (R^3). The task is far more than a quantitative budget-balancing exercise. It is an attempt to address intentionally the changes exerting powerful influences on the future of this University. It is also a resolve to position ourselves strategically to explore and evaluate new opportunities against the concept of a redesigned base.

At Michigan State University at all levels--from unit to university--we have always planned as a matter of course. The

process we have engaged in has indeed been a process of refocusing, rebalancing, and refining. Until early in 1988 we had not yet identified it in those terms--as R^3. R^3 is a process. It is a process which proffers the necessity of striving to articulate those shared values from which we will envision, then shape, our once and future university. R^3 is not a prescription for a vision of MSU, rather it is a guide for how we will approach a vision for Michigan State University.

To be useful, long-range strategic planning should facilitate innovation; it must be flexible and progressive; it must also involve consultation with faculty, staff, students, and administrators through University governance and administrative structures. **R^3 is a dynamic planning process.** It assumes that the task for all universities has been and will continue to be unchanged: to be the prime source of intellectual development for society. At Michigan State University, we have a fuller charge: to be the prime source of intellectual and pragmatic development for society.

However, R^3 also recognizes that the academic culture has changed and will continue to change dramatically from the conditions addressed by Michigan State University at its inception in 1855 or at its centennial in 1955. An understanding of the implications of these new and different contexts, including our status as an AAU (Association of American Universities) and land-grant institution, must be one of the outcomes of R^3.

Recognizing and identifying the characteristics of our particular academic environment, and articulating as shared values the assumptions of those characteristics provides a relational and referential frame for this process of renewal. Through our commitment to reshaping this University from a firm platform of shared values and collaborative efforts, we can construct a new and richer meaning from the most enduring contexts of our past.

Without R^3, tightening economic resources will lead to increased competition among departments and schools and among the academic and support service units for limited resources in efforts to maintain the status quo. Without R^3 we will not be positioned to make the best use of new resources or opportunities. R^3 is a process that acknowledges our responsibility to secure a university enlivened by our traditions in anticipation of contexts changing at an exponential rate. R^3 is a process that asserts both as value and as purpose the requirement of vision and revision and disallows inertia as an option. Through R^3, encompassing both continuity and change, we will reconfigure our traditions and build on this new foundation.

Thus, we shall plan in the context of our ethos--the guiding principles of our academic enterprise. Our discussions to date have identified as values a University that is:

- multidimensionally excellent;
- multidisciplinary, built on excellent and strong departments and schools;
- integrated;
- humanitarian, caring;
- strongly coupled, internally and externally;
- built on current and selectively developed strengths;
- pluralistic and diverse;
- a learning environment built on new technologies; and
- more efficient and effective.

All of these principles assume a certain flexibility, a willingness to risk, and the involvement and empowerment of faculty and staff in shaping Michigan State University.

The State of the University: What We Are

Michigan State University has added and shifted paradigms as it has grown: from a small agricultural college, to a large undergraduate, graduate and professional institution, to a major nationally and internationally recognized research and graduate university. In each of these periods expert faculty members were recruited to advance the University through successive shifts in size and function, as well as through profound changes in the perceptions and values that formed its guiding vision. At this time in its history, Michigan State University pursues a unique blend of its historical land-grant and more recent Association of American Universities (AAU) missions. All institutions invited to membership in the AAU strive to be at the forefront of the creation and advancement of knowledge and culture, and, through graduate and post-doctoral instruction, to provide this nation's future scholars and leaders.

Similarly, land-grant institutions strive to provide access to an excellent education for as many qualified citizens as possible, to conduct focused research, and to apply knowledge systematically to the solution of important problems. At Michigan State University, the unique combination of a land-grant tradition and an AAU distinction provides insights into our mission, creating quality and a scope that is greater than and transcends the sum of the individual components of either an AAU institution or a land-grant university. Thus, as a land-grant university that has qualified for AAU membership, Michigan State University is distinguished by our commitment of access to a broad spectrum of high quality educational programs, the melding of professional and technical instruction with liberal education, the search for new knowledge, the preservation of existing knowledge, and the sharing of knowledge and resources as they are applied in service of people to solve significant day-to-day problems.

Here, just as the disciplines and professions cross, the humanities and sciences intersect, heightening our levels of aesthetic sensitivity, creativity, and insight. Literature, history, religion, philosophy, language, and the arts connect our individual and institutional senses of self, the ethical consequences of our actions, and our place in the world historically, culturally, and linguistically. Every facet of the human experience is permeated by science through its intellectual and technological products. The physical, biological, social, economic, and behavioral sciences present society with a protracted list of moral and ethical dilemmas as well as with the potential for resolution. Further, the unique challenge in addressing major problems, either theoretical or applied, is that the best solutions rarely can be found if the problem is viewed solely from a single vantage point, from any one discipline or profession, or from a confined cultural or national perspective.

Here, teaching, research, and service are intertwined as knowledge is shared, discovered, and applied. Just as the quality of education for students and the efficacy of problem-focused research may be enhanced through more integration of the disciplines, so too, the long-term vitality and scholarship of the faculty may be enhanced by bridging the gaps between teaching and research, between research and service, and between teaching and service.

Here, the traditional trilogy of instruction, research, and service is a new paradigm which values, as a single theme,

the creation, the application, and the sharing of knowledge. People and ideas are in partnership in this new and interactive connection.

The Challenge of Change

Today, Michigan State University must consider making extensive changes within existing contexts--as well as adding new contexts--to capture more fully the opportunities afforded by the artful blending and the deliberate intersection of service, research, and teaching. Moving toward the 1990s, the rate and nature of change on global, national, and regional fronts and in economic, technological, and cultural arenas mandate corresponding changes by our universities. Multidisciplinary efforts of research, instruction, and outreach programs--grounded in strong departments and schools--are, and must continue to be, a hallmark of Michigan State University.

New directions for the University are emerging through new configurations of research and service with lifelong, graduate, and undergraduate education, and through new alignments of the traditional disciplines in multidisciplinary degree and outreach programs. Michigan State University will build on its new foundation through 5 developing platforms: CRUE (Council to Review Undergraduate Education), CORRAGE (Council On Reviewing Research And Graduate Education), PAIDEIA (Pluralism And Institutional Diversity: Excellence In Action), PLUS (Planning for a Lifelong University System), and AMPS (Administrative Management and Program Support). The identification of these platforms emphasizes the University's awareness of the need to pursue new directions in undergraduate education; to advance research and scholarly activity; to foster graduate and graduate-professional education; to foster pluralism with vigorous commitment and results-oriented activities; to revitalize lifelong education; to enhance public service to promote the diffusion and transfer of knowledge for human benefit and economic development; and to streamline and balance the effectiveness and efficiency of processes and procedures on unit as well as on central needs.

Constant assessment and a willingness to make wise changes, in a mode of collegial participation and timely decision making, are necessary if Michigan State University is to continue to grow in stature nationally and internationally in a way that preserves its unique role in the state, and that distinguishes it from the many other excellent institutions of higher learning. Such changes are necessary not because there is a particular wrong which needs to be righted, but because this University now renews our acceptance of the challenge to do even better and to be better than we are today.

The task before us is immense and extraordinarily strenuous. It will require substantial energies, a steady resolve, and the firm conviction of its accomplishment. From its inception in 1855 to the present, Michigan State University has undergone a series of profound changes. During these times of change, the members of the university community have brought to bear their individual and collective expertise to advance the University. Our resolute optimism has always assured that we sustain ourselves through the most turbulent of times to emerge better than we were. However,

all indicators suggest that the next several years are going to be financially difficult ones for the University. Such a prognosis could threaten to erode our resolve. This must not happen. It will not happen, provided we face the challenge together with courage and conviction. As in the past, Michigan State University will meet the challenge. It will make the major changes in contexts necessary to meet the responsibilities and opportunities of the 21st century.

The External Environmental Context for R3

The environmental assumptions express the University's best sense of how external conditions, over which the University has no direct decision-making authority and sometimes little or no control, but which in some cases it can influence, will constrain or augment the University's programs. The list of external environmental constraints and opportunities will not only assist the University with program and financial planning, it will also help determine where and how the University might try to influence certain external conditions. Such a list cannot be definitive, but does reflect the major external tendencies influencing the University into the 1990s. The discovery, collaboration, and application of knowledge at Michigan State University will be affected by these tendencies. The external environment, however, is a changing context. R3 requires that the University now develop its plans and vision with a poised awareness and readiness to identify and respond to unexpected changes when they are first observed.

Based on environmental scanning of demographic, business, economic, political, and social tendencies at this point in history, Michigan State University must look toward a future which is likely to be characterized by the following conditions:

- Increasing demands placed upon University instruction, research, and service programs by the citizens of Michigan. Overall, the commitment and the ability of the faculty and staff to be responsive to increased expectations will exceed the physical and financial resources available to address these growing demands. The external expectations will continue to be for a Michigan State University that is "all things to all people" in its undergraduate and service programs. Selectivity in graduate education and research arenas will continue to be acceptable, and, in fact, will be viewed as an indication of high quality.

- In the near future, the University's share of the state appropriation will remain stable at current levels relative to other Michigan universities. Our appropriation will be relatively favorable in comparison with other state agencies and departments.

- No decrease in the number or vigor of other Michigan universities. Michigan State University will continue to be a part of and a major contributor to a strong system of higher education in Michigan.

- Increased and effective pressure from other state agencies for a larger share of the total State of Michigan General Fund/General Purpose appropriation. The relatively favorable current position of higher education is vulnerable to erosion, particularly in years of state economic stress.

- Increases in tuition and fees are not likely to compensate for budgetary short falls.

- Proportional support of the University from sources other than tuition, fees, and state appropriations will increase steadily, shifting toward non-public, main revenue sources.

- Dramatic increases in "critical maintenance" items. With the deferred maintenance backlog approaching $100M (million), the physical environment will

erode or divert potentially significant amounts of resources away from direct support of academic programs.

- Increased pressure from state government to be accountable, particularly in matters of faculty workload and undergraduate educational outcomes.
- Comparative rate of real growth in relationship to the growth rates of other peer institutions and to the total resource availability will be the standard of assessing overall University viability.
- Considerably more in-state undergraduate students interested in selecting Michigan State University than current configurations of instructional programs or infrastructure resources will allow.
- Wider range of demographic characteristics represented in the student body. The University will have to address increasingly the needs of an older student population, an older work force, minorities, immigrants, women, and handicappers.
- Continued growth of information and knowledge at a rate faster than its application and transfer can be effected.
- Faculty capabilities and ideas that continue to exceed the publicly sustained financial and support base.
- Retirement profile which represents a loss of some of our most distinguished faculty, and is of a sufficient magnitude to be an opportunity to reconfigure the University's core of faculty expertise as the retirements are captured and new positions are selectively filled.

The indisputable demographic trends which are well established portend great challenges for higher education--perhaps as great as those we have ever been called upon to address. The environmental context must include trends or tendencies related to students, graduates and the work force, youth and primary and secondary education, faculty, administration and management, fiscal and physical resources, research, public service and lifelong learning, knowledge and information processing and management, and international relationships. Attachment A reviews these environmental tendencies including those exogenous factors which exert pressures on the universities in general. The strategic directions embraced by Michigan State University for the 1990s must recognize these environmental characteristics while maintaining a clear focus on this University's mission and the more immediate goals of R^3. As one of the 10 largest institutions of higher learning worldwide and as one of 17 land-grant institutions achieving membership in the distinguished Association of American Universities, Michigan State University has a special responsibility to do so.

As we approach the turn of the century, Michigan State University will have to reconsider continuously the characteristics of the environment of which we are a part. To paraphrase Abraham Lincoln (1862), the dogmas of the past are inadequate for the present; the occasion is piled high with difficulty and with great opportunity, and we must rise to the occasion; as our case is new, so we must think anew.

Given the characteristics of the environment, a commitment to the integrity of our individual and collective actions will assure for us some choice about the future as well as a role in creating a more positive context. The task ahead is not easy for any of us. It requires commitment, energy, and wisdom--individually and collectively.

The Internal Environmental Context for R^3

There are also internal constraints exerting pressure on the University. The reconfiguring of units at double-digit reduction levels is bounded by these parameters: discussions of a possible transition to a semester system by the early 1990s; an enrollment of 41,000 to 42,500 students during the 3-year reconfiguring period; management of differential growth trajectories to achieve selected priorities while achieving an overall reduction; positioning for the future by avoiding the elimination of "junior" faculty; sufficient but limited time for the consultation and implementation efforts required to accomplish the requisite reductions.

The Michigan State University response to external and internal environments must be guided by a recognition of the

- positive value of sufficient **flexibility** to respond to circumstances which sometimes change in unforeseen ways.
- benefits of experimenting and pursuing **reasonable risk** in capturing innovative opportunities that spring from our strengths.
- inspiration of a co-created, shared vision and the **involvement and empowerment** of faculty and staff in shaping Michigan State University.

To continue to grow in a time of financial constraint requires that the University not only create an environment that values flexibility, risk, and involvement but also create outcomes that are characterized by:

- **Common Agenda**, as the ways in which resources can be moved to accomplish different projects or address sets of shared goals without restriction to organizational boundaries. The close coupling necessary for the success of a common agenda requires a strategic positioning, encouraged by the R^3 process to support a positive growth trajectory over a period of time. **Unnecessary duplicative functions in different units will be eliminated. Responsibility and accountability for the care of our physical resources will be broadened and tightened.** For example, considerations will include the consolidation of functions, not necessarily organizational units, as coalitions are forged on behalf of the greater good of the University, as well as the reexamination of a balance between centralization and decentralization of services. Energy conservation and waste recycling are specific examples of cross-campus agenda which yield major benefits for the entire University.
- **Mutual Interdependency and Reinforcement**, as ways to organize internally and externally without duplicating organizational and facility requirements. **Collaborative efforts between our colleges and departments will be fostered. Additional cooperative ventures with other Michigan educational institutions will be initiated.** For example, considerations will include possibilities for permeable programmatic boundaries with other Michigan colleges and universities, as well as with government, business, and industry. "Intrapreneurial" cooperation, as a reaching out within the institution rather than competition, will be pursued.
- **Work Simplification**, as ways in which required tasks can be streamlined, relative priorities established, and non-essential work eliminated. **Better guidelines will be established to review the appropriateness of expenditures at the unit level. Paper flow and forms will be simplified. Judgments will be made and communicated more rapidly.** For example, considerations will include those risk-reducing procedures which cost more than the mistake they are intended to prevent.

- Support and Service, as the orientation of support for the academic mission and ways in which the support services relate to the accomplishment of academic priorities. **The "boom and bust" cycle will be modified. Auxiliary activities will provide greater direct support to the academic enterprise. General Fund subsidy of activities which can be self-supporting will be reduced.** For example, considerations will include ways in which the faculty can be better supported relative to our current position.

- Capacity Utilization as the appropriate balance between resource inputs and outputs. **Appropriate productivity benchmarks for program evaluation will be established.** For example, considerations will include the optimization of teaching capacity on the basis of current personnel resources, and matters of workload expectation, as well as ways in which individuals accept personal responsibility for their immediate work environment and make a positive difference on a person-by-person basis.

- Recognition and Incentives, as the ways in which the accomplishments, the initiatives, and the training and professional development for faculty and staff are valued by the institution. **Programs for professional development and early retirement incentives will be established.** For example, considerations will include the rewarding of individual and unit excellence across a multiplicity of dimensions. Overall, the consideration of the University as an employer and how such responsibilities can be met should be pursued.

- Intellectual Affirmative Action, as the ways in which we value as essential a climate of diversity and pluralism. **Personnel decisions will be made to preserve and enhance diversity among our staff and students.** For example, we will promote linkage with Historically Black Colleges and Universities to encourage and better assure the completion of undergraduate as well as advanced graduate studies and the acquisition of tenure; we will take bold steps to address youth-at-risk; we will expand our Summer Research Opportunity Program; we will promote mentoring--for both students and faculty--as a value; and we will foster the recruitment of diverse senior faculty. In addition to "traditional affirmative action" which focuses on hiring and admissions, considerations will include ways in which we can create, not just select, successful staff and students. We will foster pluralism by taking new initiatives to project us to a new level of awareness. Paraphrasing the recent American Council on Education special report (1987), valuing diversity means that there is more than one way to think, feel, behave, and act--that there is more than one world view; just as every major shift in values has wrought dramatic change, so too, could the true celebration of diversity bring new vigor to our institution. Diversity holds the potential for discovery, innovation, enlightenment, and solutions to the complex decisions of this planet.

The external and internal environmental challenges of R^3 require both the personal will to achieve and the commitment to accomplish R^3 together. John Gardner (1973) noted that "leaders don't invent motivations. They unlock them.... One of the mistakes we make in thinking about the future is to lay too much stress on rational problem-solving aspects and to neglect the inchoate motivations that determine whether people have the will to solve their problems.... We have to believe in something. We have to care about something."

There are not designated "fixers" within the R^3 process. The outlook is one more related to the Latin verb *administrare*, the root word for administration, meaning "to be an aid to". It assumes a team approach and responsible self direction working to establish shared values and objectives.

The Principles of R^3

Through teaching, research, and public service, and with technical, economic, and cultural innovation, Michigan State University continues to value human enablement by the creation and propagation of knowledge, and by instilling in students integrity, curiosity, and a commitment to service. Michigan State University is distinctive in other ways: we have a productive presence in every county in Michigan; a strong commitment both to undergraduate education and to research excellence; a vitality in international activities; a pluralism of human resources; and a flexibility of diversity. Our efforts are two-pronged: we must look closely at ourselves as well as address the commitments of our land-grant tradition.

Thus, we shall plan in the context of our ethos--the guiding principles of our academic enterprise. Our discussions to date with members of the University community have identified as values a University that is multidimensionally excellent; multi-disciplinary, built on excellent and strong departments and schools; strongly coupled, internally and externally; integrated; humanitarian, caring; built on current and selectively developed strengths; more efficient and effective; pluralistic and diverse; and has a learning environment built on new technologies. All of these values assume a certain flexibility, a willingness to risk, a sharing of agendas, and the involvement and empowerment of members of our various constituencies in shaping Michigan State University.

When we talk about a University that is "multidimensionally excellent", we intend a definition of excellence that holds as essential to the concept of excellence an array of dimensions, each one necessary but insufficient in itself for the definition of the whole. Excellence, as we assert it as a principle, refers to a whole--a whole enabled and ennobled by the quality existence of the sum of its parts.

We strive to maintain a balance of disciplines, strong disciplines demonstrating a vitality of breadth and depth. We will encourage linkage between and among disciplines toward the fulfillment of more effective and efficient teaching, research, and service. The strength afforded by such relationships will promote stronger internal and external couplings with business, industry, government, and education at all levels as we respond to the challenges of the 21st century.

The extent to which we are successful will, in large measure, depend on the extent to which we foster in the members of our University community an enabling self-worth that manifests itself in ways that assure a community of productive, caring participants who are eager and effective in response to the challenge of contexts in flux.

Pluralism encompasses variety, diversity, and distinction in all aspects of the University. It rejects the coupling of difference with deficiency by addressing intentionally the concept of "otherness", the obverse that bestows the full value of any currency. Michigan State University will fulfill its mission, achieve its goals, and inculcate in its students values informed by richer perspectives and nobler principles.

Outcomes and Expectations of R^3

The success of the refocusing, rebalancing, and refining of the University will be assessed in relation to our ability to:

- Improve the quality of undergraduate education through the CRUE renewal initiatives
- Restructure programs of lifelong education into a truly lifelong learning process which permeates the University and the state (PLUS)
- Demonstrate an improved rate of growth for research activity, and conduct an intensive recommendation-oriented review of research and graduate study (CORRAGE)
- Better support for faculty as we improve our relative ratios of SS&E and facility infrastructure per faculty member
- Improve our internal sense of community as a measure of morale and will to acknowledge and act upon our interdependencies
- Recognize pluralism and diversity as a dimension of our value system in addition to a specified set of personnel practices (PAIDEIA)
- Openly utilize established governance and advisory structures to establish and bring to consensus dialogue related to the future of Michigan State University
- Establish an external image of being well-managed as both an effective and efficient enterprise (AMPS)
- Achieve fiscal integrity through budget savings
- Set more of a common agenda between the University and the state
- Rekindle the service dimensions of our mission in each arena related to the creation, application, and sharing of knowledge
- Expand the ongoing communication and planning among and between academic and support units

Toward these ends, R^3 must bring together the relatively separate planning of the various units. The current strengths of the academic units are testimony to the high quality of past decisions and choices. Now the relatively uncoupled planning of the colleges must be united in a way that is advantageous to the whole of the University. Particular attention must be given to the points where activities of different units intersect; conflicts will be dealt with and resolved, and common values and goals synergized.

R^3 -- Evaluations, Projections, Proposals

The process of refocusing, rebalancing, and refining must generate a creative and innovative reconfiguration of our academic culture to ensure a University that is refocused in terms of priorities, rebalanced in consideration of the equilibrium between and among academic programs, and refined to create a more effective and efficient academic enterprise.

The starting point for R^3 was to refocus our priorities and to refine the academic enterprise for more effective and efficient outcomes. Rebalancing, an equilibrium of anticipated expenditures and revenues, has become necessary because of the current economic situation. R^3 is the way in which reallocation will be managed during the immediate fiscal years while focusing an eye toward the future.

Rebalancing has begun with an overall 5 percent reallocation plan for 1988-89. The budget for this fiscal year saw a serious effort across the entire University to prepare for a permanent reduction of the perpetual gap between total ongoing expenditures and total revenues. During this current year, rebalancing

will continue and refocusing will begin as strategies for change evolve from a critical review of our programs, their effectiveness and productivity, and of the role and responsibilities of each unit within the University. As departments/schools and colleges/MAUs review their programs, identify their strengths, and develop reconfigurations of programs and units, current demographic, disciplinary, economic, and institutional data will inform those decisions.

The R^3 process must respond realistically to the current projections of Michigan State University's financial circumstances. (Attachment B consists of a summary of the current financial situation.) Based on a variety of the best available economic projections, as well as the looming demographic changes, the probable need continues for potential reallocations of an additional 10 to 15 percent over the next 3- to 4-year period. During this time, our tradition of cost awareness will be even more important. We will continually regenerate internal resources to offset the slowing growth of state appropriations. The potentialities of the current Capital Campaign, the increasing partnerships to productively link this University with government and business, and the reconfiguration opportunities of the retirement profile are representative of the ways in which we will generate internal resources to sustain a definite trajectory of positive growth.

A multi-year approach is called for as a longer-range planning and implementation horizon is necessary to liberate the potential for flexibility and creativity that is critical at this time. Because the magnitude of the required configurations will be difficult to meet, planning will lead to a more positive outcome if it is based on a long-range view which is not confined to a single year. Adjustments, positive or negative, will be commensurate with the R^3 approach.

As Michigan State University moves to reassess its priorities within the R^3 context, we must continue to give careful attention to the identification, preservation, and extension of areas of institutional strength. As initiated in early 1988, through individual communication with each Major Administrative Unit (MAU) administrator, the Provost and the Vice President for Finance and Operations will continue to review MAU-level proposals in an all-University context asking each dean, director, or support service executive to consider further modifications as may be necessary. On the basis of subsequent modifications and refinements, the Provost and Vice President for Finance and Operations will continue appropriate consultation with faculty, students, and staff in accordance with established procedures. Additionally, support service and academic administrations will continue the dialogue of shared concerns and values initiated in the 1988 cluster meetings as groups of academic and support service administrators shared plans and priorities. This team approach to communication among and between academic and support service units will be a strong characteristic of R^3.

The touchstone for this interactive dialogue must be the fact that people are our greatest resource. The competencies and performance of individual faculty and staff and the collective departments, schools, and support service units contribute much to the external credibility and internal viability of

our University. An important assumption of R^3 is that the employment contracts of tenure-system faculty will be honored. Faculty will continue to be consulted about the future of the University and their own professional futures. Some new assignment patterns will be necessary in keeping with the spirit of tenure within the University, and careful attention to professional development for faculty in light of new programmatic or workload expectations will be essential and is an area for intensive study early in R^3.

The Self-Study Framework

Self-study oriented toward intentional change has been initiated in several all-University domains. For example, the implementation of recommendations contained in the report from The Council to Review Undergraduate Education (CRUE) has begun and the highest priority of maintaining excellent quality undergraduate education has been clearly established. The awarding of a grant from the Kellogg Foundation in excess of $10M for the development of new ventures in lifelong education is making the vision of lifelong education a reality at Michigan State University, as we plan for a lifelong university system (PLUS). Additionally, major studies that have been underway--the academic calendar and parking and transportation--are nearing conclusion. Studies of child care and the cost of health benefits are proceeding. Review and deliberation of priorities related to graduate education and research (CORRAGE), our pluralism and institutional diversity (PAIDEIA), and of our administrative management and program support (AMPS) are developing as other platforms of our strategic vision for the 1990s. The platforms (i.e., CRUE, CORRAGE) are the foundations for unit-level self-study as each unit within the whole of the University adopts a focused self-direction. Within this framework, the principles of a University that is multidimensionally excellent; multi-disciplinary, built on excellent and strong departments and schools; strongly coupled, internally and externally; integrated; humanitarian, caring; built on current and selectively developed strengths; more efficient and effective; pluralistic and diverse; and with a learning environment built on new technologies further focus a unit's consideration of its future in a redesigned environment. Departments and schools are now ready to consider a set of planning heuristics and general issues as their framework for self study and planning. (These are set forth as a developing set in Attachment C.)

Review of University Goals and Unit Plans

The basis for the R^3 dialogue will be critical self-assessment at the unit level, in the context of overarching directions established by the University's mission and by environmental constraints and opportunities. Our mission is defined largely through our programmatic activities. The University Mission Statement is included as a part of Attachment D. A set of institutional goals asserts the enduring principles within which academic and support units define their own roles and objectives. These units will then plan for their programs in a manner consistent with the directions of R^3. (Preliminary sets of goals are included in Attachment D.) Study of these University goals to derive principles which should refocus, rebalance, and refine has been established as an arena for intensive activity early in the refocusing phase of R^3.

To date, University planning dialogue has relied on unit-level self-assessments as reviewed by the Major Administrative Unit (MAU) administrator and the Provost or Vice President for Finance and Operations within the formal planning process of Academic Program Planning and Review (APP&R) or Support Service Program Planning and Review (SSPP&R). The APP&R and SSPP&R processes have worked effectively as a mechanism for making incremental adjustments and developing a comprehensive data base about unit-level priorities, needs, and opportunities. The flow of curriculum and course changes, the development of lists of priorities and needs for space, and institutional actions necessitated by changing external circumstances (very often regulatory requirements) augment the APP&R/SSPP&R process. R^3 will emphasize that units consider their relative purposes and roles within Michigan State University as well as within their national peer groups.

The APP&R model, with its parallel for support service units (SSPP&R), provides flexibility for accommodating fluctuations in available resources. However, to effect profound, but natural, changes in the values and perceptions that define and describe Michigan State University, better articulation between academic and support services is required. This cross-university perspective will be a prominent feature of the refocusing phases of R^3.

As a natural extension of the existing planning process, R^3 requires a reconsideration of the University's goals, environmental assumptions, and the co-development of an appropriate "strategic vision" that can guide Michigan State University into the 21st century. The refocusing of our University will concentrate on large as well as small activities. Matters of University goals and environmental assumptions will be initiated centrally. Through the process of R^3 we will co-create a strong sense of strategic vision. We will address more focused questions resulting from the study of the following: academic calendar, transportation and parking, child care, the centralization and decentralization of services, health benefit costs, and the optimization of existing capacity for instruction, research and public service. Individual units will continue with Academic and Support Service Program Planning and Review, selectively addressing a framework of planning heuristics and general issues within their department/school and college/MAU. Essential in every unit are open dialogue, objective self-analysis, and timely decisions.

The platforms of CRUE, CORRAGE, lifelong education (PLUS), those for building a pluralistic and diverse university (PAIDEIA), and the review of administrative management and program support (AMPS) will articulate our strategic vision of what we wish and have to be and how we will get there from here. R^3 is the process by which we will build on a redesigned base. Reconfiguring our academic enterprise refers to the activity of making innovative and significant reform in philosophy and attitude, policy and practice, and structure and organization. R^3 will also address the consequences of such redesign at each of these levels.

Through the usual administrative and governance channels, the University community is now engaged in "Refocusing, Rebalancing, and Refining." (Activities and events yet to be accomplished in the earliest and intermediate stages of this process are presented in Attachment E.)

Michigan State University must emerge from R^3 as a better-supported university, even if this means a university that is smaller and more tightly focused than it is today. Above all, "Refocusing, Rebalancing, and Refining" must result in enhanced academic quality and the assurance of Michigan State University's position as one of the leading land-grant/AAU universities in the country. Such excellence comes from hard work, intelligence, and creativity.

This University has intelligence and creativity in abundance as we recognize a strong faculty and staff. Hard work in a mode of collegial respect and persistent attention to the task at hand will continue to be characteristic of the manner in which this University addresses the future.

Attachment A

The Universities and the Environmental Tendencies Affecting Their Constituents

The livelihood and development of the future university will rest on its ability to read, influence and be proactive in a rapidly changing environment.

(Collins and Tillman, 1988)

Experts from sociology, business, economics, and demography, among others, have begun to formulate a vision--a prophecy--of the future state of the world and the role and health of higher education. Most of the forecasts are based upon the projected demographic shifts in the national and world populations. Such shifts are used to envision the economic, sociological, and ideological make-up of the future population and how groups of different age and culture will influence or respond to technological innovation and social demands.

No expert claims license on powers to envision major changes--although some dramatic changes are likely to occur. One author estimates that at least 3 changes of major impact have occurred during each decade since the early 1900s. War, depression, recession, inflation, technological breakthroughs, and the like have global consequences. Yet, no one has developed an infallible way to predict what events will occur or when. Such unexpected events and conditions were what preoccupied academic decision makers over the last 50 years, and are likely to continue preoccupying them in the future.

Even though major, unpredictable events are likely to occur, there is an underlying stability to higher education. Fads and fashions, environmental changes, and efforts toward innovation have not produced instantaneous or dramatic changes in higher education. One senses, however, that higher education can become a more able facilitator of change when it becomes less reactionary to global tendencies and more proactive as they occur. Higher education may not be able to foresee the exact changes in its future, but it can envision a range of possibilities and plan for them.

The following sections reflect some of the current thinking of researchers and philosophers from a broad array of disciplines. Each section focuses on the potential influence of major, external tendencies on individual components of the university. Supporting examples and references are provided for each tendency:

I. Students

A. Enrollments could increase or decrease depending in part on the forms and amount of student aid, the cooperation and support of employers, and what happens to selective service.

1. From 1972-1982 there was an overall increase in higher education enrollment of 34.8 percent; there was also a 77 percent increase in the over 35 age group, a 70 percent increase from the 25 to 34 age group, and a 66 percent increase in part-time students (NASULGC, 1986).
2. Nationally, by 1995, there will be 25 percent fewer 18- to 24-year olds than today (Berlin and Sum, 1988) or 24 million in the mid-1990s, 25 million by the year 2000, as opposed to 30 million in 1980 and 16 million in 1960 (NASULGC, 1986).
3. By 1990, Michigan will have 1,058,000 18- to 24-year olds, a decline of 127,000 from 1985, and a decline of 205,000 from 1980 (Anonymous, 1982).

4. From 1988-89 to 1998-99, Michigan's cohort of high school graduates is expected to decline by 9 percent (Anonymous, 1988).
5. Comprehensive research and land-grant universities will not be as affected as other institutions of higher education by the drop in the traditional age group population (NASULGC, 1986).
6. Enrollment levels in land-grant universities will be shaped as much by policy as by the availability of 18-year-old students (NASULGC, 1986).
7. Higher education faces unaccustomed competition from other providers of education (already today, two-thirds of the learning opportunities for adults over 25 are provided by groups other than higher education institutions) (Cross, 1985).
8. Compulsory national service (2-years, male and female) is likely by 2000 with 3 options: military service, VISTA-type (work with the disadvantaged), or Peace Corps (Cetron, 1988).

B. Students will bring a greater diversity of skills and a greater variety of needs and problems to higher education.

1. In 1984, 16 percent of college freshmen were enrolled in remedial courses in reading, 21 percent in writing, and 25 percent in mathematics (Carnegie Foundation for the Advancement of Teaching, 1985).
2. In 1984, 13 percent of freshman students were enrolled in college level courses while still in high school (Carnegie Foundation for the Advancement of Teaching, 1985).
3. Higher education faces unaccustomed competition for the time and attention of students (more part-time students with higher priorities than education, e.g., jobs, families) (Cross, 1985).
4. The majority of the children born in the late 1960s and 1970s are not equipped with reading, writing, reasoning, and critical thinking skills that would enable them to profit from rigorous higher education (Winn, 1985).
5. By 1999, half of all college students will be over 25 and 20 percent will be over 35 (NASULGC, 1986; Harcleroad and Ostar, 1987).

C. Education will become more personalized and will be more focused on basic intellectual skills in response to the information age and its associated technological innovations.

1. The very rapid turnover of knowledge and skills may lead to a renewed emphasis of general intellectual skills and cultural skills (Scott, 1985).
2. What we need now is a theory of general education that is clearly relevant to life and work in a context of the information age--a rapidly changing scene in which uncertainty is the main planning factor (Cleveland, 1985).
3. Institutions will increasingly apply the growing knowledge about individual cognition to educational situations (Cetron, 1988).
4. Students will adopt the scholarship mode of learning--learning by consulting books, journals, etc., as professors and Ph.D. candidates do today (Cetron, 1988).
5. Students have demanded and received more nurturing--more psychological assistance, more placement services for a competitive job market, and more financial counseling in the face of increased reliance on loans (Wagener, 1988).

D. Access and matriculation remain particularly perplexing problems for higher education.

1. While the number of black high school graduates increased by 29 percent between 1975 and 1981, their college participation rate declined by 11 percent (Harcleroad and Ostar, 1987).
2. During the same period, the number of Hispanic high school graduates increased by 38 percent, while their college participation rate dropped by 16 percent (Harcleroad and Ostar, 1987).
3. The college participation rate for black males aged 19 to 21 continues to lag behind the participation rate for white males by more than 15 percent (Wagener, 1988).
4. The college participation rate for black females aged 19 to 21 has increased recently and is approaching the participation rate for white females (Wagener, 1988).

5. The college participation rate among children from families in the upper quartile of family incomes is greater than 60 percent; for children from families in the lower quartile, the college participation rate is just 16 percent (Wagener, 1988).

II. Graduates and the Work Force

A. Business and industry will seek to attract new human resources as the percentage of youths in the labor force declines from 30 percent in 1985 to 16 percent in the year 2000.

1. Non-whites, women, and immigrants will make up more than five-sixths of the net additions to the work force between now and the year 2000, though they make up only about half of it today (Johnston and Packer, 1987).
2. As the work force grows more slowly and becomes older, it will also become more female and more disadvantaged (Johnston and Packer, 1987).
3. Almost two-thirds of the new entrants into the work force between now and the year 2000 will be women, and 61 percent of all women of working age are expected to have jobs by the year 2000 (Johnston and Packer, 1987).
4. Minorities will be a larger share of new entrants into the labor force, making up 29 percent of the new entrants into the labor force between now and the year 2000 (Johnston and Packer, 1987).
5. Approximately 600,000 legal and illegal immigrants are projected to enter the United States annually throughout the balance of the century (Johnston and Packer, 1987).

B. Between now and the year 2000, for the first time in history, a majority of all new jobs will require postsecondary education (Johnston and Packer, 1987).

1. All new jobs between now and the year 2000 will be created by the service industries resulting in more people employed part-time, greater disparity in wages, and a shorter work week (Johnston and Packer, 1987).
2. The new jobs in the service industries will demand much higher skill levels than the jobs today (Johnston and Packer, 1987).
3. Very few jobs will be created for those who cannot read, follow directions, and use mathematics (Johnston and Packer, 1987).
4. By the year 2000, 88 percent of the labor force will be working in the service sector (Cetron, 1988).
5. About half of all service workers (44 percent of the labor force by 2000) will be involved in collecting, analyzing, synthesizing, structuring, storing, or retrieving information as a basis of knowledge (Cetron, 1988).
6. Half of these people (item 5) will be working at home (Cetron, 1988).
7. By 1995, 80 percent of all management will be knowledge workers (Cetron, 1988).
8. Five of the 10 fastest growing careers between now and 2001 will be computer-related, with the demand for programmers and systems analysts growing by 70 percent (Cetron, 1988).
9. The number of engineering degrees, a preferred background for employers in many industries, will have to increase by two-and-a-half times to meet the expected demand (Botkin, et. al, 1984).

C. The debt burden for graduates will increase as loans constitute the main source of student financial aid.

1. One-third of 1976-77 baccalaureate recipients had college debt; 43 percent of 1983-84 graduates had such debt (Henderson, 1987).
2. Of those who borrowed, the average college debt in 1983-84 was about $5,500, twice the average of 1976-77 ($2,700) (Henderson, 1987).
3. For graduates earning an average salary, repayment of college debts called for about 4 percent of their pre-tax earnings in 1985, up from 3 percent in 1978 (Henderson, 1987).
4. For 1986-87 baccalaureate recipients, the average debt may be $7,500 with repayments requiring about 5 percent of pre-tax earnings. For 1990-91 graduates, average college debts may reach $11,360 with repayments requiring about 6 percent of pre-tax earnings. This would be about twice the average of 1983-84 graduates (Henderson, 1987).

III. Youth and Primary and Secondary Education

A. America faces a teacher shortage in the 1990s, especially minority teachers with math and science backgrounds.

1. By 1991, 204,000 new teachers will be needed in America's primary and secondary schools (Carnegie Foundation for the Advancement of Teaching, 1986a).
2. If the teacher supply remains the same, only 63 percent of the openings will be filled by 1993 (Carnegie Foundation for the Advancement of Teaching, 1986a).
3. Although black enrollments in public schools will exceed 16 percent by 1989, less than 7 percent of the public school teachers will be black (Graham, 1987).
4. Less than 1 percent of the black students with the top scores on the SAT test indicate an interest in pursuing a career in education (Graham, 1987).
5. Greatest needs are for teachers in special education, in math and science, and with bilingual skills (Carnegie Foundation for the Advancement of Teaching, 1986a).
6. Part of the problem in filling the teacher need is that many bachelor degree recipients with teaching certificates do not actually teach (e.g., 40 percent of the recipients of teaching certificates in 1980 were not teaching in 1981 - most were employed in other professions) (Carnegie Foundation for the Advancement of Teaching, 1986a).

B. An increasing number of children in the United States are non-white and poor and are less likely to graduate from high school or attend college than other children.

1. Forty percent of the students in public schools are members of minority groups (Martin, 1988).
2. Children make up 40 percent of America's poor (Martin, 1988).
3. The number of poor has increased from 24.1 million in 1969 to 33.1 million in 1985 (Wagener, 1988).
4. Almost a third of all blacks (31.3 percent) and more than a quarter of Hispanics (29 percent) are living below the poverty line (Wagener, 1988).
5. The entering freshman class of the year 2000 are currently 6 years old. Hodgkinson (1986) offers the following data on them:
   - 24 percent live below the poverty line,
   - 33 percent of these 6-year-olds are non-white,
   - 18 percent were born out of wedlock,
   - more than 5 percent will be raised by a single parent before they reach the age of 18,
   - a higher percentage of the 6-year-olds today than in the past do not speak English, and
   - 54 percent have mothers who work outside the home--by the time they reach school-age, two-thirds of their mothers will be working, most of them full time.
6. According to the Carnegie Foundation for the Advancement of Teaching (1985):
   - 25 percent of all American young people still do not graduate from high school,
   - only 59 percent of black and 50 percent of Hispanic young people graduate from high school, and
   - 50 percent of all American young people do not continue on to college.

C. Primary and secondary schools will demonstrate new styles of education.

1. Schools will train both children and adults year-round and around the clock with the academic day lengthened to 7 hours for children (Cetron, 1988).
2. In a 1987 Harris poll, 91 percent of Americans rejected the "back-to-basics" philosophy of more reading, writing, and arithmetic and expressed that students will need new and far more sophisticated skills (Harris, 1988).
3. Telecommunications course work with another school district, state or county opens up new vistas in education (Cetron, 1988).
4. Computer-supported approaches to learning will improve both teaching and learning techniques and allow a greater amount of material to be learned (Cetron, 1988).

5. Despite new technology and new approaches to learning, many students will still suffer learning deficiencies (Cetron, 1988).
6. In a Louis Harris poll conducted in 1987, 75 percent of Americans supported increased spending on education to make minority students fully productive members of the labor force; and they were willing to contribute 2 percent of their total incomes in higher taxes to pay for this basic overhaul of education (Harris, 1988).
7. With the realization that institutions of higher education can be no better than the secondary schools that feed them, more universities must begin developing collaborative relationships with primary and secondary schools (Gross, 1988; Hodgkinson, 1986).

IV. Faculty

A. Excellent faculty members will be in greater demand in and out of higher education.

1. Bowen and Schuster (1985) estimate that as many as 500,000 new FTE faculty appointments will be needed over the next 25 years.
2. Higher education is losing its ability to compete effectively with more lucrative professions in attracting the ablest young people (Schuster, 1986).
3. With an anticipated departure rate of 4 percent per year, colleges and universities will have more faculty positions than can be suitably filled (Bowen and Schuster, 1985).
4. The pool of potential faculty will increase, however, the outside competition for both new Ph.D.s and established members of the professoriat will also increase (Bowen and Schuster, 1986).
5. Attrition might average 4 percent through the late 1990s, reaching 6 percent by the beginning of the 21st century (however, the actual attrition rate is likely to be volatile due to reactions to changes in conditions within academe and conditions in the economy outside academe) (Bowen and Schuster, 1986).
6. The net result of the decline in the number of degrees awarded to men and the increase in the number awarded to women has been a fairly stable production of Ph.D.s at just above 30,000 per year since the 1970s (Bowen and Schuster, 1986).
7. Net layoffs of faculty will not occur over the next 25 years, even during the trough of 1990-94 when at least 30,000 new FTE faculty, and conceivably as many as 100,000, could be drawn from outside academe into the higher educational system (Bowen and Schuster, 1986).
8. On the average, from 1985 to 2009 as many as 70,000 to 130,000 new FTE faculty might be appointed during each 5-year period (Bowen and Schuster, 1986).
9. Over the next 25 years (1985 to 2009) the number of appointments will probably equal two-thirds or more of the entire faculty as of 1985 (Bowen and Schuster, 1986).
10. The supply of talented minority-group members drawn to academic careers may be in acute, even catastrophic, shortage in the foreseeable future. Evidence also indicates that this interest in an academic career is waning for all groups (Bowen and Schuster, 1986).
11. Currently, blacks constitute only 1.3 percent and Hispanics only 0.6 percent of doctoral scientists (NASULGC, 1986).

B. Faculty members will develop new alternative measures of excellence amid new roles and relationships in and out of the university.

1. Many faculty members are disgruntled with higher education due to tension between research and teaching, shifting values contributing to discord and frustration on many campuses, decline in intrinsic rewards, and a sense of lost status (Schuster, 1986; Bowen and Schuster, 1985).
2. The strongest factor influencing satisfaction of the faculty is their perceived right to participate in institutional decision-making (ranked number 2 by faculty at research universities). The number 1 factor at research universities is the quality of the administration and its support of academic freedom (Carnegie Foundation for the Advancement of Teaching, 1986b).
3. Faculty members tend to view their prime responsibilities in terms of national goals, contributing to the body of published scientific and scholarly knowledge, and educating future scientists and scholars (Alpert, 1985).
4. Adherence to peer assessment of disciplinary research achievement as the single measure of departmental performance enforces conformity,

discourages diversity, and, in an age of retrenchment, focuses a larger proportion of resources on research in the high status disciplines (Astin, 1985).

5. Faculties have been under increasing pressure to perform as versatile generalists (functioning as great teachers, counselors, community problem solvers, and active members of governance committees), while receiving their status and financial rewards for specialized research, publications, and national attention as independent professionals (Keller, 1983).
6. A two-tier faculty scale is developing- - one tier for 10 percent of the scholars in certain fields where the competition from business is strong and a lower scale for the remaining 90 percent (Keller, 1983).
7. The university of the 1990s will require an expanded definition of scholarly and professional activity to include applied research, technical assistance, and policy analysis (Lynton and Elman, 1987).
8. A professional's upward mobility not only will be assessed at his or her own institution, but will also depend on his or her success in government, industry, and academia. Thus, it will be very common for an individual to have 3 distinct lines of mobility prospects, instead of the traditional 1 (Collins and Tillman, 1988).
9. The faculty member of the future will need to spend a significant amount of time in a cross-section of universities, industries, and governments (local, state, and federal). The ways in which promotion and tenure now occur will have to be changed to accommodate the faculty member's experiencing this "revolving door" trend (Collins and Tillman, 1988).
10. The raising of the mandatory retirement age to 70 and the legislatively proposed abolishment of mandatory retirement of faculty members by the 1990s are issues of concern to higher education. Graebner (1985) suggests that early retirement is a patchwork solution to a problem rooted in 15 years of neglect and decline.
11. None of the major, national reports on higher education that were reviewed by Peterson (1988) mention the issue of tenure. The author suggests that tenure has become increasingly sacrosanct and he does not expect major changes in tenure policy during the 1990s.

V. Administration and Management

A. University administrators will face increasing demands and expectations from inside and outside the university, for example:

1. One commission expects higher education to: prepare Americans for an increasingly interdependent world, revitalize the economy, address human needs and the quality of life, and restore respect for fundamental values and ethical behavior (Commission on National Challenges in Higher Education, 1988).
2. Another commission believes that the priority of higher education should be to provide opportunities for minorities, low-income, and disadvantaged students (Commission Review Task Force, 1987).
3. Others note that universities of the future must develop self-directed learners and lifelong learners (Cross, 1985).
4. Higher education is expected by some to become an extended, open system with greater cooperation between institutions and new emphases on applied research, technology/knowledge transfer, and lifelong learning (Lynton and Elman, 1987).
5. By the year 2000 higher education should ensure that at least 35 percent of all American adults have obtained college degrees (National Commission on the Role and Future of State Colleges and Universities, 1986).
6. Higher education should use its clout to influence policy-makers, provoke legislation, and alter public opinion about the importance of family stability and protection of children from experiences that hamper their development (Winn, 1985).
7. Education must prevent deterioration in skills to prevent further polarization between social classes (Berlin and Sum, 1988).

8. The quality of life depends on how many of us get educated for the new knowledge environment (Cleveland, 1985).
9. Ashby (1971) noted nearly 20 years ago: "It seems that American universities have undertaken more functions than they have the strength to discharge, and the function which has suffered the most is their prime one: the teaching of undergraduates."

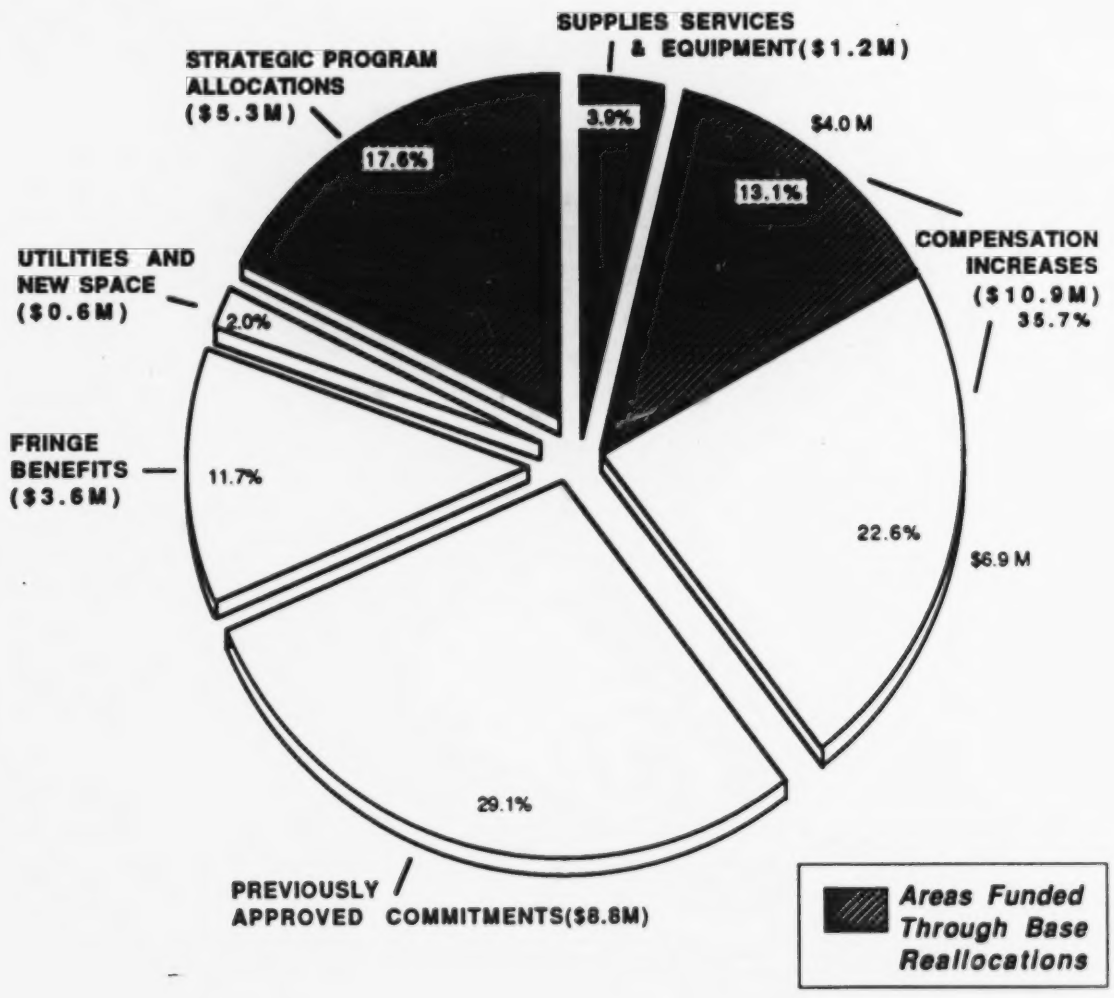
B. Expansion of higher education has encouraged external intervention (Scott, 1975).

1. Government will become more involved in higher education's response to expectations of special interest groups (Fulton, 1984).
2. Seventy-five percent of all college administrators favor evaluation of their students or their programs (Cross, 1987).
3. Greater emphasis is being placed by the public and the legislatures on the outcomes of public education (Cetron, 1988); for example, in 1988, 21 states were requiring public colleges and universities to set up programs to assess what students learn in college (Anonymous, Chronicle of Higher Education Almanac, September 1, 1988).
4. Governor's role in the stabilization of tuition rates has been very evident during the 1980s in Michigan.
5. The Michigan Education Trust Fund will guarantee higher education to its investors at any Michigan institution.
6. Over 70 percent of all public institutions in the United States cannot start a new academic program without elaborate application and approval procedures from their state coordinating boards (Keller, 1983).

C. Embracing change and practicing proactive management will become increasingly linked.

1. History suggests that academic administration consists not of long-range planning based on reliable predictions, but of adjustment to a continual succession of surprises (Bowen, 1984).
2. By their very structures and traditions, universities have been historically slow to change. Innovation will be required to speed up their responsiveness to the needs of society and industry, which themselves are undergoing rapid transformation (Botkin, et. al, 1984).
3. The livelihood and development of the future university will rest on its ability to read, influence, and be proactive in a rapidly changing environment. Thus, universities will need to establish think-tank groups. These groups could be responsible for forecasting trends, predicting the impact of trends on the university, and designing means by which threats to the university will be turned into opportunities (Collins and Tillman, 1988).
4. Campus governance is taking new forms, especially a new center of power via the "Joint Big Decisions Committee" composed of the chief academic officer as chair, selected faculty members, key administrators, and occasionally some junior faculty members, students or trustee members (Keller, 1983).
5. In the new style of academic management, the campus leaders are constantly looking ahead to see where the college or university will be in the next 3, 5, or 10 years. This requires an understanding of the dynamics of the external environment and a commitment to strategic planning (Keller, 1983; Collins and Tillman, 1988).
6. For our universities to experience accelerated growth, leaders will need to develop new problem-solving capabilities to achieve new successes in a changing environment. What was successful at one point may prove to be disastrous later. Leaders will have to read and influence the environment, to recognize changes that have taken place and are to take place (Collins and Tillman, 1988).
7. The only winning companies will be constantly adapting ones--organizations that are not only able to respond to shifting circumstances but to proactively take advantage of them (Peters, 1988).
8. The essence of proactive management in a "chaotic" world will be constituted by leaders who love change and instill and share an inspiring vision and by managers viewing themselves as "bashers-in-chief" of small barriers and "facilitators-in-chief" of trivial aids to action rather than "great planners" (Peters, 1988).
9. Peters (1988) suggests that "we match the need to address these radically shifting times with a radical and proactive strategy: fun, energy, anger, participation, vigor--and time and attention--in pursuit of demolishing the barriers, especially the excessive vertical processing of information that slows action down among functions at the front by orders of magnitude."

Schedule 1: Budget Increments, 1988-89



Budget increments for 1988-89 are displayed in dollars allocated as a percent of the total fiscal year adjustment. The chart shows the broad budget areas requiring incrementation for 1988-89. Note that internal base reallocations, as displayed by the shaded areas, are equated to the necessity to support $5.3M STRATEGIC PROGRAM ALLOCATIONS, $1.2M of SS&E, and $4.0M of the COMPENSATION INCREASES. Thus, over a third of the increments were funded through reallocations that were returned differentially to all units. For example, the pie chart shows that $4M of the base reallocations came back to units for support of compensation increases. A portion of the remaining two-thirds of the budget increments was funded through the use of $2.0M in non-recurring forward funding support in 1988-89. The $3.6M increment in FRINGE BENEFITS affects only cost escalation; it does not provide for enhanced benefits. The $8.8M of PREVIOUSLY APPROVED COMMITMENTS includes completion of funding for the previous year faculty compensation increases.

VI. Fiscal and Physical Resources

A. It is unlikely that higher education can sustain the present level of effort at the present quality without some increasing support (NASULGC, 1986).

1. Over the last 2 decades, virtually all of higher education's innovations have been added to, rather than substituted for, existing programs, As the public has demanded more, their colleges and universities have responded with more (Wagener, 1988).
2. Over the last decade, the cost of operating the average college and university has increased 23 percent faster than the rate of inflation (Wagener, 1988).
3. In Michigan, over the last decade, state appropriations to higher education have fallen by 4.5 percent, while tuition has increased by 51.9 percent, based on data adjusted for inflation (Research Associates of Washington, 1988). In 1966-67, state appropriations comprised 76 percent of the revenue source for state universities in Michigan; in 1986-87 this proportion had dropped to 61.8 percent.
4. The federal government, state government, and universities must identify and pool their resources to meet common goals (Collins and Tillman, 1988).
5. By the 21st century, the funding mix will be the reverse of the current proportions: one-third will come from the state and two-thirds will come from other external sources. The obligation of the state will not diminish, but the university will grow and assume new tasks and responsibilities associated with the environment (Collins and Tillman, 1988).
6. On the basis of education appropriations per student relative to tax revenues per capita (the ratio of percent of collected tax revenues allocated to public higher education, to public enrollment per capita), Michigan ranked 47th out of the 50 states in 1988 (Research Associates of Washington, 1988). This low ranking has been constant throughout the 1980s.
7. Over the next 20 years, fiscal resources to higher education will become more restricted (Scott, 1985).
8. The Midwest will face hard economic times with the possible exception of Minneapolis/St. Paul and the 40-mile strip from Detroit to Ann Arbor (due to robotics and the proximity of 9 graduate engineering schools) (Bell, 1987).
9. As President-elect, Bush advocated greater Federal spending for education (Cetron, 1988).
10. Research continues to be pressured by new budgetary and political constraints and damage from cumulative neglect of the research infrastructure. Bloch (1986) estimates that research needs a 50 percent increase in support for non-defense basic research and a doubling of the federal government's share.
11. The Hudson Institute looks for the economy to grow at a healthy pace during the 1990s (Johnston and Packer, 1987).
12. Distinctions between public and independent institutions are becoming blurred. Independent colleges are also becoming dependent on state and federal assistance while public colleges and universities increasingly seek non-state (federal, philanthropic, and student/family) sources of revenue.

B. Capital renewal and deferred maintenance costs for university facilities have reached the critical stage.

1. In November 1988, the estimated costs for deferred maintenance projects at the 15 public universities in Michigan exceeded $338 million, with over $123 million identified as extremely critical (Presidents Council, State Universities of Michigan, 1988).
2. A total backlog of at least $20 billion nationally is needed for immediate capital renewal and deferred maintenance at colleges and universities (NACUBO, 1988).
3. Estimates of accumulated requirements for rehabilitation, remodeling, and new construction for all of higher education in the United States may easily be $50 billion (1985 dollars) (NASULGC, 1986).
4. Roofs, heating systems, asbestos, and electrical systems have been identified as portions of structures on campuses requiring extremely urgent rehabilitation and/or additional construction (Helpern, 1987).

VII. Research

A. Growing emphasis on technology transfer and applied research.

1. Productivity in the U.S. can be increased through increasing the speed and efficiency with which we translate scientific knowledge into products and processes (Bok, 1982).
2. To enhance their responsiveness to public concerns while maintaining the integrity and standards of excellence in research, scientists must reduce their isolation from public attitudes and from public debates about science, technology, and their consequences (Bloch, 1986).
3. Society needs data transferred into knowledge and disseminated for use and application (Lynton and Elman, 1987).
4. To allow for a much more rapid transfer of new knowledge, the emphasis in higher education may switch to continuing education and to special mid-career courses (Scott, 1985).
5. Universities must develop more aggressive programs to identify patentable discoveries and to license them to interested companies (Bok, 1982).
6. A feature of the 1990s is likely to be the spread of independent or semi-independent research institutes and the establishment of graduate schools distinct from undergraduate departments (Scott, 1985).

B. Growing interest in rebuilding the research infrastructure through partnerships between universities and industry and other alliances.

1. A challenge still before us is to enable industry and universities to work together as never before to learn how to adapt to new realities imposed by the accelerating change in knowledge and technology (Botkin, et. al, 1984).
2. The idea for centers of innovation (e.g., Michigan's Industrial Technology Institute, Biotechnology Institute, and Center for High Technology) offers a mechanism to accomplish these goals in a way appropriate to American culture and history (Botkin, et. al, 1984).
3. Key to a national research strategy is the need to provide funds for improving equipment and facilities at universities (Bloch, 1986).
4. The renewal of the research and graduate education infrastructure for the year 2000 will depend absolutely on the actions taken by federal-state-industrial partnership over the next 15 years to redress problems in faculty and facilities which those institutions now face (NASULGC, 1986).
5. In the 1990s, universities and colleges will have to pay much greater attention to marketing both their courses and their research capacity (Scott, 1985).
6. To help rebuild the research infrastructure, women and minorities need innovative programs emphasizing early exposure to science and engineering, continuous attention to necessary skills, and encouragement throughout their educational careers (Bloch, 1986).

VIII. Public Service and Outreach: Lifelong Learning

A. Lifelong cooperative education will be necessary to prepare society for jobs, economies, and lifestyles which will be based on the creation and distribution of information (Cross, 1985).

1. Learning has become a lifelong necessity--part-time education for life in which education, work, and leisure are becoming more concurrent throughout the entire life span (Cross, 1985).
2. The concept of the work week will change, including how time is distributed. Attention to leisure/work relationships will be important (Cetron, 1988).
3. The wave of the future is cooperative work-study programs which formally extend university curricula to the work site to address continuing educational needs of people throughout their working lives (Botkin et. al, 1984).
4. Universities need to include more students who are returning to the classroom after periods of work (Lynton and Elman, 1987).
5. Up to 4 percent of the labor force will be in job retraining programs by the 1990s to upgrade skills and knowledge to keep pace with changing technology and changing demands of the workplace (Cetron, 1988).
6. Between 1985 and 2000, an additional 40,000 students over 25 years of age will enroll annually in colleges and universities; 80 percent will be part-time students (Keane, 1985).

7. Longevity, retirement, and pure intellectual interest are bringing older adults, in the form of the lifelong learner, in large numbers to campus (Harcleroad and Ostar, 1987).

B. New marketing and delivery schemes will be needed to facilitate lifelong learning.

1. An extended university system will require: outreach activities through accessibility and delivery schemes; scientific literacy as part of a liberal education so that society is ready to use the new knowledge on the job and as citizens; education as a lifelong process; and telecommunications to facilitate delivery of instruction and information to locations remote from the campus (Lynton and Elman, 1987).
2. As the population and work force age, Keane (1985) emphasizes the need for innovation in the marketing and delivery of information to adults, preferably in their homes and work places.
3. The learning environment will not be as important in the future--individuals will learn more on their own, the places of learning will be more dispersed, and the age at which things are learned will depend on the individual not tradition (Cetron, 1988).
4. By 1992, cable television will reach 87 percent of homes in the nation; currently, 57 percent of homes have cable television (Cetron, 1988).
5. Computer competence will reach 100 percent in U.S. urban areas by the year 2000 (Cetron, 1988).
6. Seventy percent of U. S. homes will have computers in 2001, compared with 18 percent now; more than three-fourths will be equipped to permit communication with the public switched network (Cetron, 1988).
7. Roles for the various providers of education in the learning society have become unclear (Cross, 1985). Colleges today are heavily involved in training and non-credit programs as well as in education.
8. The new model of agricultural extension expands the role of county agents and community experts beyond agricultural areas. Many state universities now employ extension agents and experts in engineering (Collins and Tillman, 1988).
9. Information technology will likely become a major vehicle for responding to the education and training needs of society in the next few decades (Office of Technology Assessment, 1982). (See the next section for more tendencies on new computer and instructional technology.)

IX. Knowledge and Information Processing and Management

A. The information revolution is creating new stresses on many societal institutions, including higher education.

1. The capacity to store, retrieve and assimilate information from computers and their networks is accelerating by a factor of 10 percent per decade (Collins and Tillman, 1988).
2. Knowledge is growing exponentially where even specialists find it hard to keep up in their own fields (e.g., more books have been published since the late 1940s than in all of the previous generations) (Bok, 1986).
3. The rate at which we can infuse new technology into our society will be determined largely by the rate that university faculty can renew their own bases of knowledge in the form of textbooks, videotapes, and computer-based instruction (Botkin et. al, 1984).
4. Five thousand to 7,000 scientific articles are written each day and information is doubling every 5.5 years--the problem for the future is not the supply of information but its selection (Cross, 1985).
5. Half-life of an engineer's knowledge today is 5 years; in 10 years, 90 percent of what he or she knows will be on a computer (Cetron, 1988).
6. Eighty-five percent of the information on National Institutes of Health computers is upgraded in 5 years (Cetron, 1988).
7. Private commercial ventures will establish themselves as the proprietors of large electronic data bases, eventually replacing the university library (Cetron, 1988).
8. Collins and Tillman (1988) expect that universities will develop Information Centers on campus that will be a combination computer center, library, and learning center.

B. New technology will greatly facilitate the storage, analysis, retrieval, and dissemination of data and information, in areas such as instruction, research, and administration at universities.

1. By 2001, nearly all college textbooks and many high school and junior high school books will come with computer disks to aid in learning (Cetron, 1988).

2. Computers will provide access to all the card catalogs of all the libraries in the world by the late 1990s. Millions of volumes can be called up on a personal computer screen from distant libraries (Cetron, 1988).
3. Videodiscs will enhance books by providing visual and audio information and even recordings of smells, sensations, and tastes (Cetron, 1988).
4. Investment in expert systems and related technology should top $1.3 billion this year--3 times the amount in 1985 (Cetron, 1988).
5. By 2001, artificial intelligence and expert systems will be in almost universal use to help assimilate data and solve problems beyond the computer's range (Cetron, 1988).
6. Throughout the 1990s, personal computers will be used for voting, filing income tax returns, applying for auto license plates, and taking tests such as college entrance exams and professional accreditations (Cetron, 1988).
7. The classroom of the 1990s could be a set of individual computer screens linked to massive information storage systems controlled by sophisticated software (Johnston and Packer, 1987).
8. Much remains to be learned about the educational and psychological effects of technological approaches to instruction (Office of Technology Assessment, 1982).

X. International Relationships

A. Encouragement of global competitiveness, interdependency and increased tendency toward protectionism.

1. Global bipolarity and the Soviet-American Cold-War are ending, as we know them, due to revolutions in education and technology (Rostow, 1987).
2. The next century should provide us with the challenge of peaceful competition with those nations that are our adversaries today (Nava, 1988).
3. Most of the steps that must be taken to improve U.S. competitiveness have little to do with changing the behavior of the Japanese or the Koreans. Instead, they involve changes in the propensity of Americans to borrow and spend rather than to save, major improvements in the educational preparation of large numbers of prospective workers, and reforms in the practices and laws that encourage the best and brightest to provide legal advice in corporate takeovers rather than to build companies that exploit new technology (Johnston and Packer, 1987).
4. U.S. prosperity between now and the end of the century will depend primarily on how fast the world economy grows and on how rapidly domestic productivity increases. Whatever is done to improve U.S. competitiveness must always be undertaken within the context of strengthening the world economy (Johnston and Packer, 1987).
5. The October (1987) crisis revealed new risks created by the global markets themselves and expanded the danger of great instability in the new and closely integrated world system (Spero, 1988-89).
6. The United States has a major economic stake in the prosperity and growth of the Third World countries (Maynes, 1988).
7. More and more developing countries will soon be able to produce and market goods and services internationally. The United States will be forced to increase exports fourfold by the end of the century (Collins and Tillman, 1988).
8. Despite the obstacles, other, more encouraging, signs suggest new democracies in Latin America have exhibited a healthy pragmatism in the way they deal with their militaries, their civilian opposition, the international business community, and the United States (Pastor, 1988-89).

B. Evolving global campuses as greater cultural and economic incentives will be available for higher education to expand internationally.

1. A greater number of foreign students will attend American universities and there will be increases in the number and tenure of American students who attend foreign universities (Collins and Tillman, 1988).
2. This level of exchange will promote more attention to cultural studies, as well as to the forces influencing expanded international trade (Collins and Tillman, 1988).
3. Increased exchange cannot occur unless institutions have internationally attuned faculty (Collins and Tillman, 1988).
4. A prominent feature of various commission reports is the call for internationalism including educational incentives to induce

much more foreign-language education (Peters, 1988; Commission on National Challenges in Higher Education, 1988; Keane, 1985; National Commission on the Role and Future of State Colleges and Universities, 1986; Nava, 1988; Servan-Schreiber and Simon, 1987).

The foregoing sections have focused on the potential influence of major, external tendencies on universities in general. There are also internal constraints exerting specific pressure on Michigan State University. The reconfiguring of units at double-digit reallocation levels is bounded by the following parameters:

- Discussions of a possible transition to a semester system by the early 1990s
- An enrollment of 41,000 to 42,500 students during the next 3-year reconfiguring period
- The management of differential growth trajectories to achieve selected priorities while achieving an overall reduction in the rate of expenditure growth
- Positioning for the future by protecting and nurturing the "junior faculty"
- Sufficient but limited time for the consultation and implementation efforts needed to accomplish the requisite reductions

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Attachment B

Financial Variables, Trends, and 1989-90 Preliminary Budget Considerations

An understanding of the implications of current financial projections on the R^3 process may be enhanced by first reviewing the overall financial environment, including key University revenue and expenditure variables, then by pursuing a specific examination of 1988-89 and 1989-90 budget considerations.

Financial Environment

The financial environment within which Michigan State University must pursue its mission is dominated by the economic circumstances of the state of Michigan, particularly the state's direct support to higher education. After excellent support in the 1960s and into the 1970s, the early 1980s were a time when Michigan's support for higher education dropped significantly compared to other states, hitting a low point in 1983 when Michigan ranked 33rd in the nation in per capita support. The following period through 1988 has been a period of relative prosperity for higher education in Michigan. With the support and concurrence of the legislature, Governor James J. Blanchard has been a strong advocate of higher education and has made its support one of the highest priorities in each of his budgetary recommendations.

Colleges and universities now receive about 15.7 percent of the state general fund/general purpose budget, making Michigan 22nd among the states in current per capita support for higher education. Yet there are other pressing needs, such as social services and corrections. Governor Blanchard and the Michigan Legislature have been required to deal with the state's pressing needs while trying to create a more stable tax base through economic development efforts that have received national acclaim. Even on a balanced inflation trajectory, some readjustments would be necessary since the overall pattern of expenditure growth rate for the higher education enterprise is nationally 1 to 2 percent above the inflation rate.

Special consideration of the funding levels of Michigan State University is compelled, relative to other Michigan universities. The Fiscal Year Equated Student (FYES) comparisons and a bipartisan assessment of needs clearly demonstrate that the level of comparative underfunding, even at lower ranges, is between $50M and $80M. Yet it may not be possible for MSU to garner significantly more than its traditional share of the state's higher education appropriation (23 percent of institutional amounts) in the near future. Hence, a major gap between comparative funding and investment need remains.

Michigan State University addresses the funding gap between available revenue and necessary expenditures within the context of our demonstrated needs, and attempts to address the gap through internal reallocation. Systematic internal reallocations of resources have been essential in order to strengthen centers of excellence and to respond to changing societal needs. By internally reallocating over $50M since 1979, Michigan State University has retained a competitive position while meeting the growing and changing program

needs of the state. In order to continue current initiatives, the 1988-89 increments to budgets illustrate the necessity to combine internal reallocations with the very modest--lower than inflation--appropriation increase. Schedule 1 displays the magnitude and role of the most recent reallocations and new revenue. This schedule should be considered in the context of the 1988-89 reduction targets for academic units. Through the recoveries and allocations noted in Schedule 1, the 1988-89 gross reduction target of 5 percent was modified to a "net" or effective reallocation target closer to 2 percent considering new allocations and when spread across all academic units.

The University's reasonably stable past growth trajectory provides a platform from which expenditures can be managed to the revenue line. This trajectory is displayed in Schedule 2. The strategy to close the gap between the rate of revenue growth and the rate of expenditure growth has become a key variable in our financial future.

Key Variables

Appropriation and tuition and fee revenues together comprise approximately 94 percent of University General Fund support. Specifically, appropriation amounts account for some 58 percent of revenues while tuition and fees comprise approximately 36 percent of revenues. Thus, a 1 percent appropriation increment is roughly equivalent to a 1.6 percent tuition and fee increment; or, alternately, a 1 percent tuition and fee increment is roughly equivalent to a .6 percent appropriation increment. Other revenues, including indirect cost recoveries, interest income, and equity from prior year budgets, account for approximately 6 percent of General Fund revenues.

Out-year projections for closing the revenue/expenditure gap are not encouraging. The pattern of less than inflation-adjusted appropriation increases may be expected to continue unless there is a significant but unlikely shift in public support for an increase in tax revenue. The expenditure path from 1978-79 to 1988-89 when combined with estimates of projected expenditures through 1990-91 provides a longitudinal view of the future in which, unless action is taken, the expenditure/revenue gap will continue. Even assuming favorable appropriations of 5 percent and above in the early 1990s, the discrepancy grows to some $30M, providing a rough calibration for the need to accommodate adjustments of 10 to 15 percent, in our refocusing of the University. Schedule 2 displays these relationships.

Trends

At this time of the year, there is a level of uncertainty about the key General Fund revenue parameters (state appropriations, tuition and fees) for 1989-90. However, preliminary estimates require revenue change at approximately 5 percent (producing approximately $17M) necessary to meet the critical needs of the University. This assumes appropriations between 2 percent and 5 percent and tuition and fees at between 8 percent and 12 percent without future reliance of forward funding.* This level of revenue increase is well below the $35M identified as reasonably needed in our 1989-90 Budget Request to the state. Thus, substantial adjustments again will

*Note: "Forward funding" is a mechanism provided by the state that permits the University to borrow a portion of the coming year's appropriation.

be required. Significant increases in expenditures can be attributed to annualization of salary commitments, price adjustments within an existing fringe benefit program, increases in utility costs, expenses related to new space, and increases in student assistance tied to tuition and fees. In addition, allocations are required for salary increases and programmatic thrusts. In sum, unrestrained expenditure growth before reallocation is expected to be at a rate of between 8 percent and 11 percent or by $30M to $40M. Although a component of this growth rate is attributed to internal cost factors, this factor roughly parallels the national statistic showing the growth rate of the higher education enterprise at about 1 to 2 percent above the inflation rate--expected to be 4 to 6 percent for 1989. Thus, a Higher Education Price Index increase of about 5 to 8 percent is anticipated.

Regardless of the levels of funding we anticipate, the Michigan State University budget must be balanced, with estimated expenditures equaling estimated revenues. Thus, planning for 1989-90 must be done with the understanding that the plausible range of potential recoveries and reallocations from the base established by the 1988-89 allocation is unlikely to be lower than 5 percent. It is probable that, if economic circumstances do not improve significantly, cumulative recoveries and reallocations in the range of 10 to 15 percent over the next few years will be necessary just to meet fundamental program needs, compensation requirements, and operational costs. Adjustments of this magnitude are going to be very difficult; yet the fundamental character of Michigan State University must be responsibly maintained at a level of high quality that allows contributions to society to be enhanced continually--and this cannot be done in an environment in which expenditures surpass revenues. A multi-year planning schedule will be required to provide units with the flexibility necessary to reconfigure their units over the next 3 to 4 years.

1989-90 Budget Needs

University requirements during the 1989-90 period and beyond may be guided by the following tenets: to maintain, and when possible, enhance Michigan State University's **competitive position** in comparison to peer institutions; to respond to the **programmatic requirements** dictated by new knowledge and changing societal needs; and to counter the effects of **inflation** on existing programs and initiatives. The framework used for the development of the University budget is a set of General Fund budget planning principles. These principles are included as Appendix III of Attachment D. Also specified in Attachment D are the programmatic priorities established in both the 1988-89 and 1989-90 budget requests to the state of Michigan.

Comparative data continue to document significant needs within the academic and support infrastructure of the University. Within this context, achieving competitive faculty salaries has been a high priority for this University for several years. Actions continue to be necessary not only to improve current faculty support, but also to put Michigan State University in a position to compete effectively for faculty when the major retirement bulge hits higher education in the 1990s. For example, the two-stage raise actions embarked on during 1987-88 moved Michigan

State University's relative salary (including fringe benefit amounts) position among the land-grant/AAU group for assistant professors from 10th to 9th; for associate professors from 12th to 8th; and for professors from 13th to 12th. It is particularly essential for the University to remain very competitive at the assistant professor level in order to attract new members of the faculty, including women and minorities--this is our investment in the future.

Although conditions have improved generally, the competitive strain on colleges and the extent of salary compression are highly variable and require ongoing attention. Merit adjustments in conjunction with targeted market adjustments, funded through a combination of central and unit allocations, remain necessary so that gains are not eroded. As usual, the Office of the Provost will consult with the University Committee on Faculty Affairs about the 1989-90 budget parameters and the level of faculty salary increases possible given available resources. It is essential that the relative gains initiated in 1987-88 be maintained.

The quality of graduate programs is directly affected by the University's ability to recruit graduate students; competitive compensation rates for graduate assistants are crucial. During recent years, the stipend levels were increased by a general adjustment plus an additional loading factor to offset the increase in tuition. The Office of the Provost has continued to consult with the Council of Graduate Students and the University Graduate Council about compensation and recruitment packages for graduate assistants. From these discussions, partial funding for graduate assistants' health benefit coverage has emerged.

We must also ensure that other essential elements undergirding program quality are not compromised. Program allocations, in general, should be about 1 to 2 percent of the general fund budget to permit a smooth, incremental change in the nature and support of programs and activities. For 1989-90, the range would be $3.5M to $7.0M. In times of major program readjustments, more transitional funds are necessary. Yet "rebalancing" is necessary each year. The traditional method for such "rebalancing" is through program allocations. These program allocations are not the only adjustments that are made, but the pathway for institutional development is charted through these sustained budgetary actions. Program allocations, coupled with the prudent use of nonrecurring funds, boost progress toward objectives outlined in budget requests and toward priorities emerging from the planning process.

Over the last decade, resources in the academic area have shifted. Reallocations have continued in several dimensions. Schedules 3, 4, 5, and 6 provide a variety of views. As illustrated by Schedule 3, percent of total General Fund budget among the academic units have declined in the medical and administration units. Shifts in General Fund expenditures by function, as illustrated in Schedule 4, show a decline in support for instruction and an increase in support for research. Changing patterns of student interest and employability, as well as conscious University decisions to enhance the quality and competitive position of selected programs, to enhance research capability, and to meet commitments to financial aid, fringe benefits, and other contractual obligations influenced

the budget shifts displayed in Schedule 5. The effects of recoveries and reallocations of funds relative to the overall trend of the University budget can be seen in Schedule 6 which displays the relative recoveries, in actual dollars to academic units, for the period from 1983-84 to 1988-89. For example, during this period, enrollment pressures and accreditation requirements were addressed primarily through significant allocations to the colleges of Business, Engineering, and Veterinary Medicine. However, the more recent allocation patterns show a shift in additional proportional support away from the professional colleges and into other areas of need.

The net changes to the total budgets provide a platform for readjustments that must be reflected in the 1989-90 preliminary budget planning. Over time, unit allocations are not made on a "business as usual" or on an "across the board" basis. Rather, allocations are intentionally and differentially targeted and, as such, have reaped benefits for Michigan State University and the state of Michigan through the enhanced quality of some academic programs (as evidenced by external accreditation and ratings) and through increased grant and contract activity. The impact of external factors, such as federal and state regulations, on the operations of Michigan State University also dramatically affect reallocation priorities.

In addition to strengthening its existing **infrastructure**, continuing initiatives must be addressed: the **revitalization of undergraduate education** characterized by the report of the Council to Review Undergraduate Education (CRUE), and the **revitalization of lifelong education** as envisioned in the grant from the Kellogg Foundation. Clearly, some program adjustments must be made within existing budgets to support CRUE recommendations. Yet, based on preliminary estimates of undergraduate enrollment pressures, funds must be available to sustain the relative position of the core colleges, including James Madison College. Also, **institutional matching funds** are now required for acceptance of the award of the lifelong education grant by the Kellogg Foundation.

In his 1988 State of the University message, President John DiBiaggio identified **youth-at-risk** as a pending catastrophe. Land-grant universities have a special responsibility to address this problem, and special strengths with which to do so using research and scholarship in many areas of knowledge. Thus, modest funding has been targeted for new initiatives across the campus. In addition, the **Capital Campaign** continues to be a priority. Funding is required for the ongoing costs of the campaign and for the sustained development activities envisioned.

Michigan State University also seeks to enhance its **research standing in key areas**, in part through targeting Research Excellence Funds and other special resources. In collaboration with other universities, we are seeking a combination of external and internal funding for science and technology centers, plant research, and hazardous waste management expertise. Because there is not state support comparable to Research Excellence Funds for the arts, social, and behavioral sciences, there are extra demands for internal funding to advocate for scholarship in these areas.

Comments from faculty and administrators have shown that our research capability is often closely linked to the **laboratory space environment**. Major alterations and renovations are needed to update existing space to support new technologies; research programs; and changing instruction, research, and public service patterns. Changes in the physical facility environment are also necessary to assure **handicapper accessibility**.

Further, new regulations governing areas such as those associated with low-level radioactive material require an investment to sustain the research trajectory and maintain a safe work environment. The **impact of state and federal regulations** in the operation of Michigan State University continues to affect dramatically reallocation priorities.

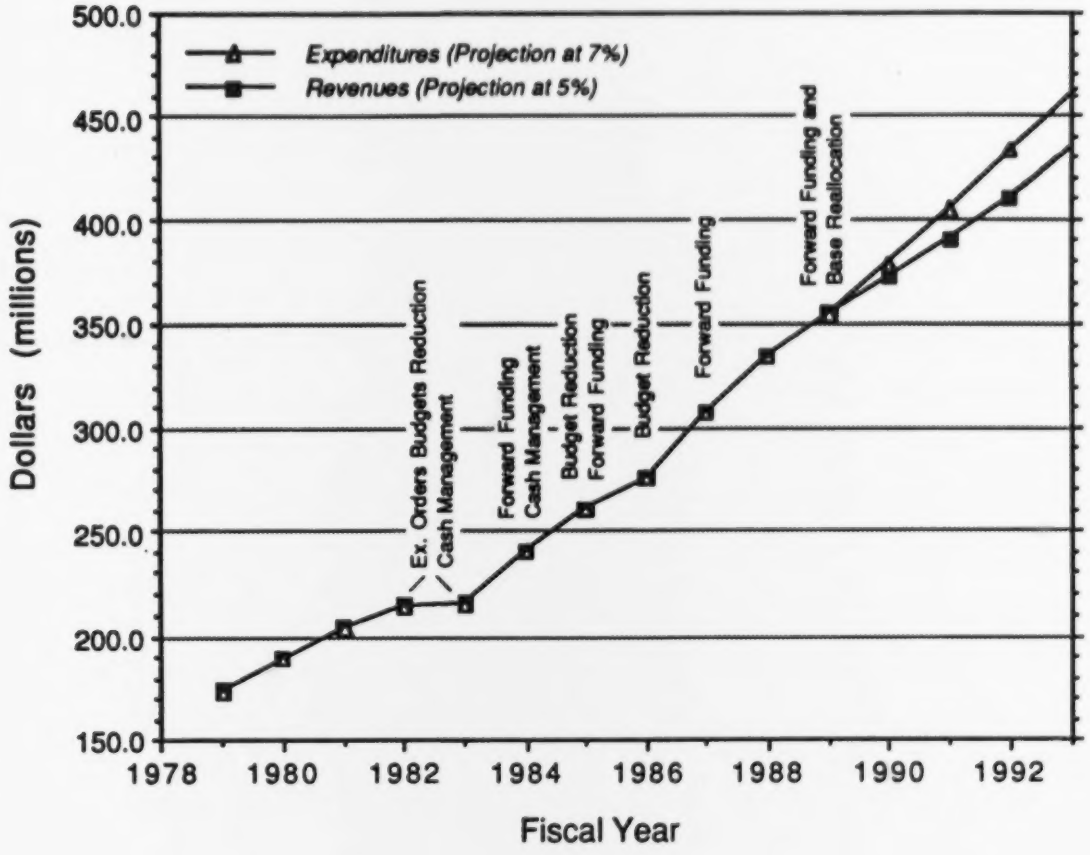
Funding for **affirmative action** programs, particularly for women and minority faculty and graduate students, continues to be a priority. Transition funding for new and visiting minority and women faculty must be continued and enhanced, for it allows selected units and areas with particularly low representation and availability of the protected classes to embark on continuous recruiting. This approach will enable units to recruit for positions in advance of retirements and will provide a head start in the fierce competition for faculty in certain areas that will occur in the mid-1990s. During these efforts, all units must also be attentive to issues relating to the recruitment and retention of handicappers.

Transition funds are also needed to bridge chasms caused by budget recoveries and reallocations to assure necessary and orderly programmatic transitions. During these transitions, the opportunity for students to complete programs of study across all areas of the University in a reasonable and timely manner must be preserved.

Finally, the University's access to information must be preserved. The purchasing power of the **library acquisitions** budget must be protected against inflation. Similarly, faculty and student **access to new information technologies** must be supported to assure quality academic programs and enhance the competitiveness of our graduates and faculty. Program allocations are necessary to preserve this thrust, and to continue with the established commitment to a **Student Information System (SIS)**. **Inflationary adjustments** should be made to supplies, services, and equipment components of the budgets.

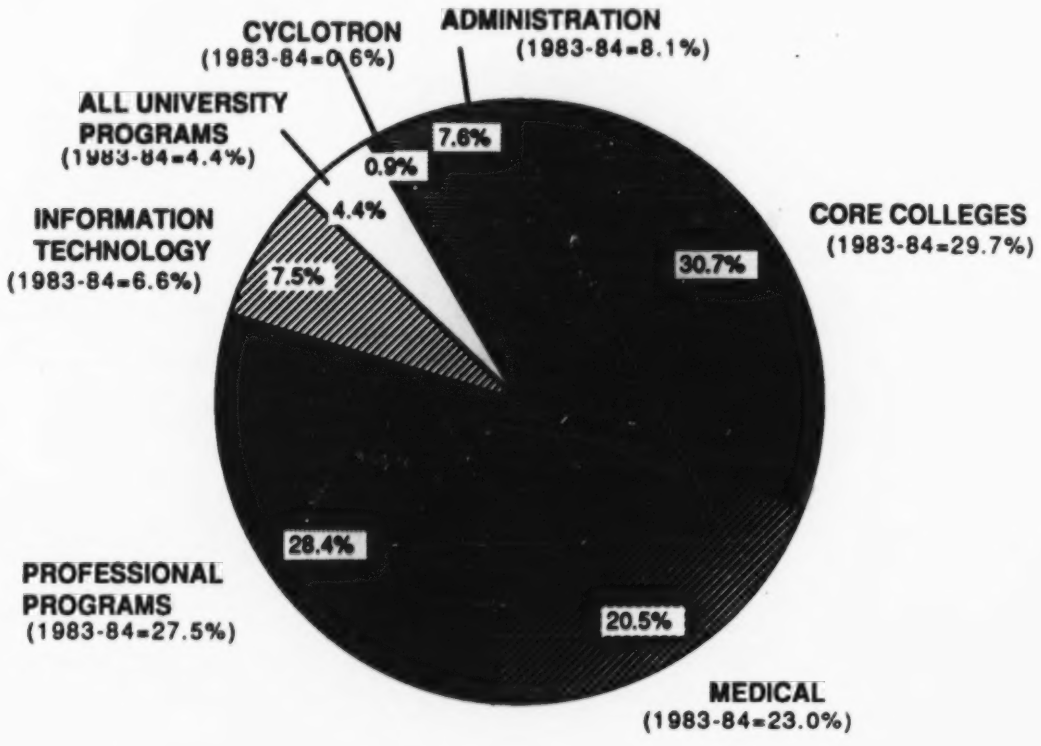
Clearly, the anticipated resource levels will not meet all the needs identified, particularly given the possibility of required reallocations to meet basic compensation increases. All indicators suggest that the next several years are going to be difficult ones in the University's financial arena. The challenges that must be faced by each academic and support service unit to reconfigure and adjust to the current situation are complex. It is impossible to describe this task of identifying options as anything other than extraordinarily difficult. However, as difficult as the challenge is, confidence in the individual abilities of our faculty and staff and unit administrators, and our collective capabilities to meet these circumstances has not waivered.

Schedule 2: Projected Revenues/Expenditures



Expenditures and revenues for fiscal years 1978-79 through 1988-89 (1989) are shown. Projected expenditures and revenues for fiscal years 1989-90 through 1991-92 are based on 7 percent and 5 percent estimates, respectively. Only through the use of cash management, forward funding, and/or budget reductions has the University been able to achieve a balanced expenditure and revenue line. Unless the expenditure line can be restrained and reset to the revenue estimates, the revenue expenditure gap not only continues, it is projected to widen in magnitude.

Schedule 3: Academic Unit Budgets, 1988-89



Allocations to seven program areas in 1988-89 are displayed as a percent of the total General Fund budget for academic units. The chart shows the breakdown between program areas that include:

Core Colleges: Arts and Letters, James Madison, Natural Science, and Social Science;

Medical: Human Medicine, Nursing, Osteopathic Medicine, Veterinary Medicine, and VP for Health Services and Facilities;

Professional Programs: Agriculture and Natural Resources, Business, Communication Arts and Sciences, Education, Engineering, and Human Ecology;

Information Technology: Libraries and Academic Computing;

All-University Programs: Assistant Provost for Lifelong Education, Assistant Provost for Undergraduate Education, Honors College, International Studies and Programs, and Urban Affairs Programs;

Cyclotron: National Superconducting Cyclotron Laboratory;

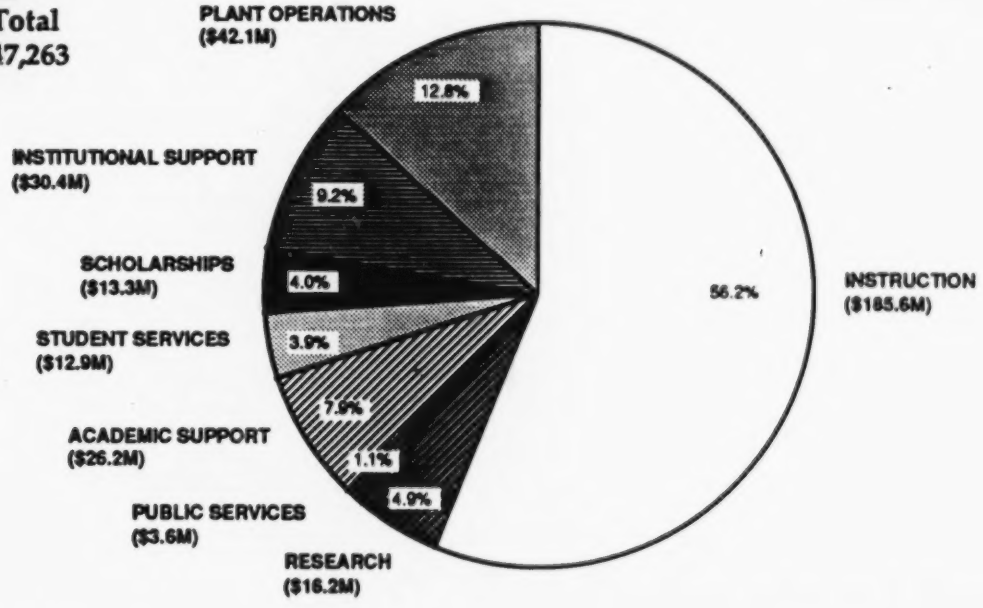
Administration: Assistant Provost for Academic Personnel, Assistant Provost for Academic Services, Provost, and VP for Research and Graduate Studies. This includes items of an all-university nature (i.e., the Provost's Special Account, Admissions, and the Registrar).

Comparative figures are provided on the graph for budget allocations to the programs in fiscal year 1983-84. As illustrated, program allocations have declined overall in the Medical and Administration units.

Schedule 4: General Fund Expenditures

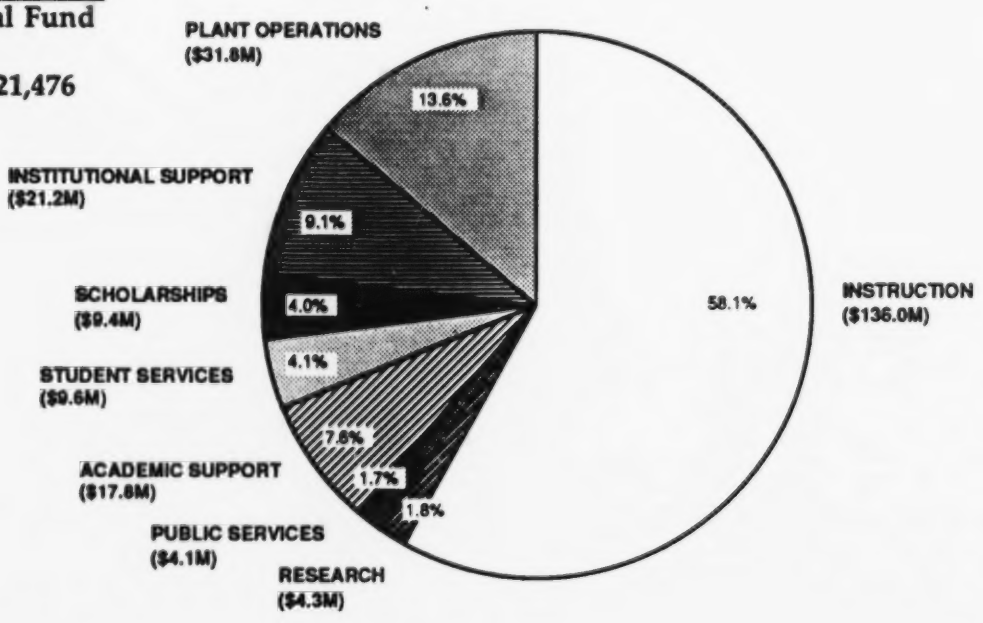
1987-88

General Fund Total $330,347,263



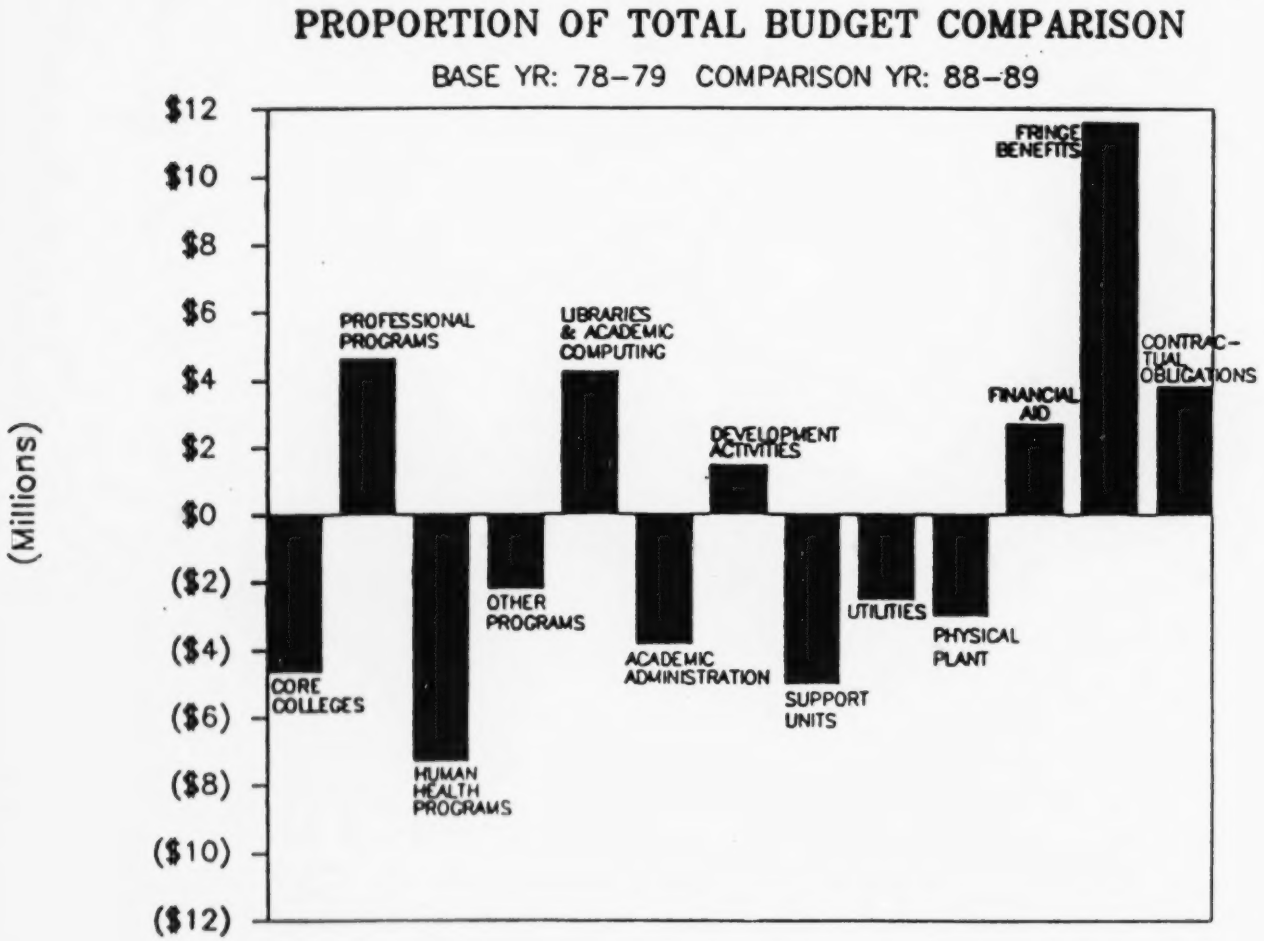
1983-84

General Fund Total $234, 121,476



This chart shows shifts in General Fund expenditure by function between 1983-84 and 1987-88. Research has received the largest increase in support relative to the other function areas. Categories are pre-designated for use in national comparisons between institutions of higher education. For example, "instruction" includes teaching and all other departmental activities.

Schedule 5: General Fund Apportionment

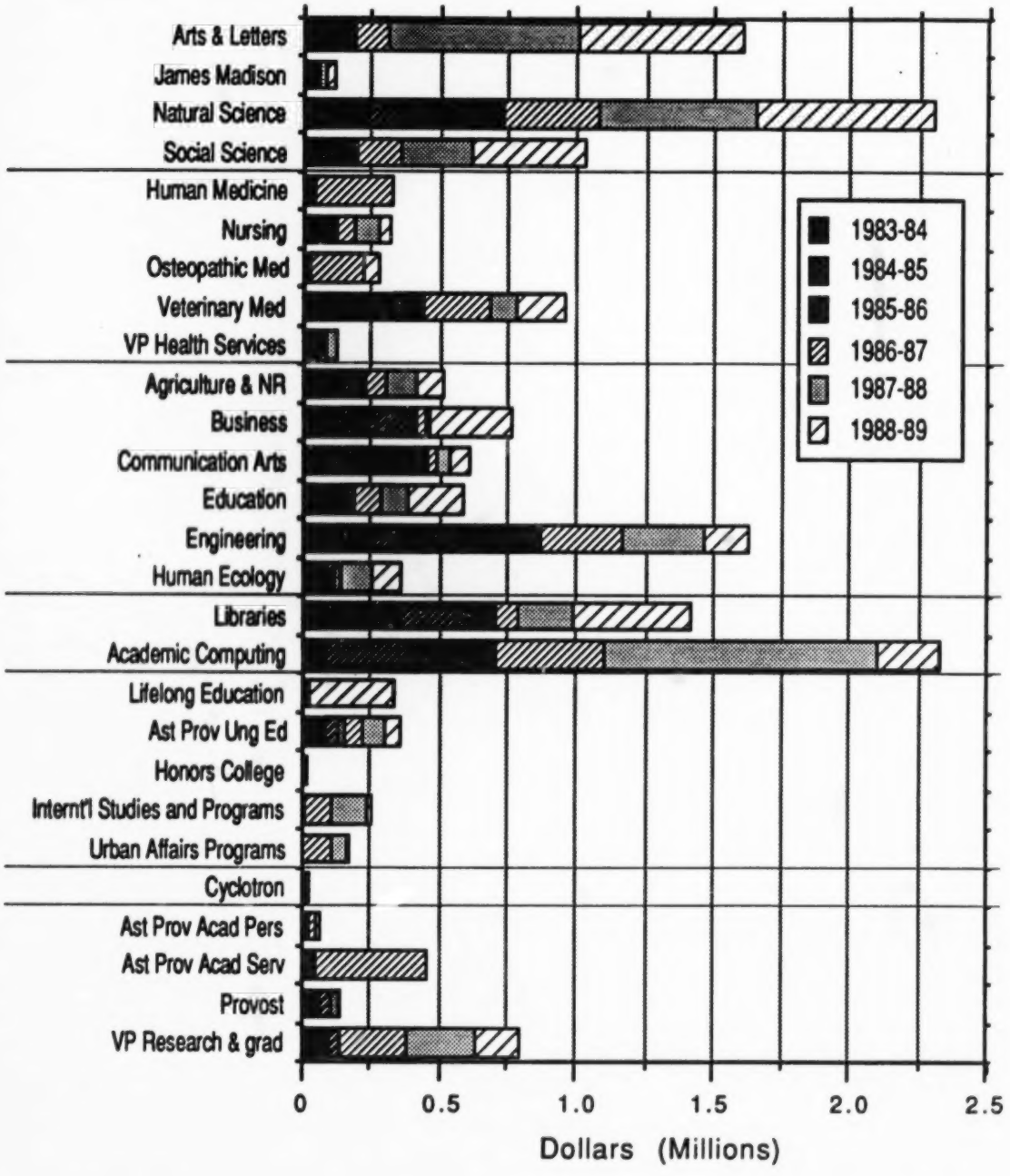


The graph shows changes in the General Fund portion of the budget between the base year, 1978-79, and the comparison year 1988-89. If a unit had the same proportion of the budget in 1988-89 as in 1978-79, the plot would indicate zero.

Research excellence fund support is included in the appropriate units.

The groupings include: Core Colleges (Arts and Letters, Natural Science, Social Science, James Madison); Professional Programs (Agriculture and Natural Resources, Business, Communication Arts and Sciences, Education, Engineering, Human Ecology, Veterinary Medicine); Human Health Programs (Human Medicine, Nursing, Osteopathic Medicine, Vice President for Health Services and Facilities); Other Programs (National Superconducting Cyclotron Laboratory, Urban Affairs Programs, Honors College, International Studies Programs, Vice President for Research and Graduate Studies, Lifelong Education Programs); Academic Administration (Provost, Assistant Provosts for Academic Services, Academic Personnel, and Undergraduate Education); Development Activities (Alumni, Vice President for Development); Physical Plant (Assistant Vice President Physical Plant, Operation of Plant); Support Units (General Counsel, Vice President Finance and Operations, Vice President for Governmental Relations, Vice President for Student Affairs and Services); Contractual Obligations (in order of budgetary significance: Debt Service, Insurance, Academic Space Rental, Accrued Salary Academic Year Faculty, Office Rent, Legal/Professional Services, University Health Programs, Capital Acquisitions, Waste Disposal, Auditing Services, Association Membership, University Released Time, Arbitration Costs).

Schedule 6: Cumulative Recurring Allocations



This chart shows allocations to selected units in academic areas for 6 fiscal years, 1983-84 through 1988-89. Allocation dollars have not been adjusted for inflation.

Attachment C

Self-Assessment Framework and General Issues for Study and Deliberation

Self-Assessment Framework

The most encompassing framework for a unit's self-assessment and planning is provided by the University's mission. (The Mission Statement is included in Attachment D.) This outline of the enduring purposes and responsibilities of Michigan State University expresses the idea of our University and thereby guides, in a basic way, the entire self-study and planning process.

Progressive specificity is provided by University Goals, R^3 principles and platforms, planning heuristics, and action-oriented general issues that have particular relevance at this point in time.

University goals interpret and delineate the mission so that academic and support units can define their own roles and objectives; they also guide the activities and efforts of the University as a whole toward a set of broadly applied directions and intentions. (The current outline of University Goals is included also in Attachment D.) Derived from these goals are the principles which have been identified to frame the refocusing, rebalancing, and refining of Michigan State University. Those are the principles that establish our focus to be a University that is:

- multidimensionally excellent;
- multidisciplinary, built on excellent and strong departments and schools;
- integrated;
- humanitarian, caring;
- strongly coupled, internally and externally;
- built on current and selectively developed strengths;
- pluralistic and diverse;
- a learning environment built on new technologies; and
- effective and efficient.

The framework for self-assessment and planning must be specified within the key areas used to guide unit self-study, as well as the areas used to guide the evaluation of unit plans. As such, a set of planning heuristics has been set forth and has provided a framework for evaluating the plans advanced by the colleges for 1988-89 budget preparation. These will continue for the longer term commitment to refocusing, rebalancing, and refining required by R^3. Planning heuristics include, but are not limited to, the following characteristics:

Personnel (faculty, students, and staff)

- Reward systems for promoting research, teaching, and service activities that reflect the mission and goals of the University
- Teaching models that are effective in themselves while congruent with research and service models
- Personal and professional development opportunities for faculty in a proactive atmosphere, with special attention given to women, minorities, and handicappers
- Support staff to enable faculty to meet their teaching, research, and service responsibilities
- Graduation rate, employment rate and other indicators of student/graduate progress
- Available expertise for strengthening long-term social and economic development in the state of Michigan or for working in the international component of University outreach

Programs

- Formative evaluation procedures:
  - Critical review of curricula to ensure quality within the scope of the unit's mission
  - Review of course offerings to avoid significant overlap with other areas

- Documentation of appropriate multidimensional measures for assessing the quality of teaching, research, and service

- Multidisciplinary programs in instruction, research, and public service (where appropriate), particularly in cooperation with other units

- Strong admissions and recruitment policies in graduate programs

- National recognition for graduate programs

- Instructional and research capacity and its maintenance in proportion to any past increases in faculty

- Innovation and change:
  - Research foci that reflect shifts in funding opportunities or societal needs
  - Mechanisms to embrace new educational technology, new areas of knowledge, or new University thrusts in lifelong, undergraduate, and graduate education
  - Responsiveness and sensitivity to external audiences and constituencies

- Role in meeting University responsibilities, including service courses

Finance (including facilities)

- Internal redistributions of faculty, facilities or funds to support the service, outreach, and instructional dimensions of the University

- Use of centralized services to marshal resources and to achieve higher planes of operation with new technologies, avoiding duplication of decentralized services wherever possible

- Efforts to produce real savings without compromising unit and University responsibilities and priorities

- Development and sharing of new mechanisms for effective use of resources within and across units, and across colleges

- Research:
  - Competitiveness in seeking and obtaining external support for research
  - Research funding trajectory in relation to FTE faculty
  - Growth in sponsored research funding without compromising the unit's other responsibilities

- Space management practices to use assigned space effectively

General Issues

A set of general issues which require further deliberation has been identified. In some specific cases, actions have been initiated already to meet required, immediate cost savings as well as to position the University for more rigorous cost containment. Budget savings must occur through greater efficiency and effectiveness to build a higher quality University, in ways consistent with its fundamental and traditional character, and to enter the 21st century from a position of eminence.

The list is necessarily incomplete; however, it is a beginning for the dialogue that must occur at every level of the University as we refocus, rebalance, and refine our current commitments and our future directions. The study of these general issues will result in a template for making better use of the University resources, regardless of whatever constraints or opportunities are encountered. As parts of the institution explore new ways to achieve commitments and reconfigure to meet the challenges of the current economic situation, changes have begun along lines consistent with the emerging R^3 principles and platforms. However, additional study and deliberation, at all levels, must occur as changes of a more sweeping all-University nature are made.

1. Matters of Personnel Practice

1.1 - The tenure rights of faculty will be maintained, although assignment patterns may be altered. Efforts will be made to achieve necessary reductions in force through attrition for support staff.

1.2 - As new University foci are recognized, new faculty are hired, and the necessary organizational changes related to teaching, research, and service activities are implemented, efforts must be made to provide professional development opportunities to assure that affected faculty can continue to make significant contributions to the University.

1.3 - As a matter of general principle, all academic administrators should be actively involved in educational programs on a regular basis and should retain to the fullest extent possible an active program of scholarship through teaching, research, and service.

1.4 - Expectations of, and for, new hires should reflect the evolving balance of faculty effort in instruction, research, and public service. Increased efforts to recruit minority and women faculty will be expected in order to achieve the excellence that flows from diversity.

1.5 - Personnel policies for support staff should better support the research mission of the University.

1.6 - Academic year appointments for more faculty and staff (both academic and support), including some administrators, should be encouraged.

1.7 - Early retirement options should be developed.

1.8 - Fringe benefit costs and corresponding funds now in place should be transferred to the units. More inclusive personnel planning would occur as well as efforts at cost containment.

1.9 - There should be greater controls on General Fund hiring, particularly of support staff. Units should be given a complement (against which to manage) that is based upon a reasonable assessment of needed faculty/staff ratios, and availability of outside sources of funding. Position-hiring freezes should be considered when decentralized measures of control appear to be ineffective.

1.10 - The relationship of retirees to the University should be better developed as a resource of great value.

1.11 - The separate personnel systems for academic and support staff should pursue functional mergers.

1.12 - The training of personnel across units and employee groups should be facilitated and coordinated.

1.13 - The retirement profile of particular units, and of the whole University, must be considered as a resource of considerable magnitude for reconfiguring areas of faculty expertise as we position for the future, as well as meet current commitments.

2. Matters of Collaboration and Coordination

2.1 - The enhancement of the aesthetic, artistic, and cultural resources of the University should be cultivated as an essential component of the academic environment.

2.2 - Opportunities for savings must be identified where separate but related activities are now conducted, even if each is excellent in its own way. It may be possible to create greater excellence while reducing investment by refocusing the activities.

2.3 - Greater collaboration to provide a unique approach to medical education among the medical schools, particularly the colleges of Human and Osteopathic Medicine, is required to effect a reduction of the overall portion of resources that go into graduate medical education. Greater

streamlining of common courses is necessary as well as increased reliance on other sources of income.

2.4 - Cross-cutting units such as Urban Affairs Programs, International Studies and Programs, and Lifelong Education Programs should assure that their priorities blend with the strengths of academic units and help shape the nature of the faculty recruited to MSU.

2.5 - Opportunities to design innovative degree programs, new research programs, and new extension services that are hybrids of former sets should be explored in a multi-college format (e.g., business and health care, communication and business, agriculture and social science, initiatives for teacher education) rather than being pursued by competing programs located in single colleges.

2.6 - Greater coordination of outreach activities should be orchestrated between Lifelong Education Programs, Urban Affairs Programs, International Studies and Programs, and the Cooperative Extension Service.

2.7 - Consolidation of support functions or units which may offer savings and enhanced effectiveness should be considered. For example, areas to be explored include information technology and the work forces related to the planning and maintenance of physical facilities and grounds, animal care, safety, and student services.

2.8 - Better coordination and perhaps consolidation of health- and human-service related activities should be explored.

2.9 - The cultural outreach dimensions could be enhanced through better coordination.

2.10 - The general academic areas related to family and child development should be studied with a view to strengthening programs for the entire lifespan and for youth-at-risk through collaborative efforts among colleges and units.

2.11 - Heavily business-oriented programs should be reviewed, with stress on enhanced course sharing and joint program development with the College of Business.

2.12 - Efforts to reorganize the biological sciences into a more effective structure should be escalated.

2.13 - Different organizational arrangements for departments and schools within colleges, as well as for centers and institutes, should be considered to bring greater clarity to program thrusts.

2.14 - Collaborations between University Relations and the Alumni Office should be sharpened.

2.15 - Handicapper and minority services should be reconfigured to eliminate gaps and overlaps.

2.16 - The technology related functions of the Instructional Media Center, Academic Computing, the Learning Resources Center, Administrative Information Services, Telecommunication, and Instructional and Public Television should be carefully integrated.

3. Matters of Unit Productivity

3.1 - Underutilized capacities of colleges and departments/schools should be examined in light of the nature of the units, optional instructional models, historical trends, and current circumstances. The examinations should consider:

- Sections with fewer than 20 students
- Faculty on the General Fund teaching fewer than 3 sections a year
- Trends in SCH/FTE, Research Dollars/FTE, Publications/FTE, Public Service Dollars/FTE
- Support Personnel/FTE
- SS&E Dollars/FTE
- SS&E Dollars/SCH in laboratory instruction

3.2 - Excellence in all aspects of the instructional, research and service mission should be encouraged, and excellence in each should be rewarded

more favorably than "ordinary" performance in another. The instruction, research, and service efforts of faculty members should reflect a balancing. If a person is not appropriately involved in one sphere of activity, greater involvement in the other spheres is expected. Further, instruction, research and service productivity must be carefully measured at the unit level to assure that outputs are appropriate to the human and financial resources invested.

3.3 - Innovation in teaching models should be encouraged and rewarded to improve both effectiveness and productivity.

3.4 - The implementation of unit-level plans should enhance the University's opportunities and capacity to compete effectively for external grants and private gifts.

4. Matters of University and Course Enrollments

4.1 - The University should carefully consider the implications of a systematic adjustment of the overall level of enrollment, the mix of out-of-state and in-state students, and the proportion of graduate students, while continuing to assure diversity of the student body by active recruitment of minority students.

4.2 - The University should carefully consider the implications of establishing a mechanism to permit greater certainty in the offering of required courses and programs in relation to the available faculty resources. The University, buffeted by changes in the employment market and the interests of students, has not established a stable, cogent policy for resource distribution across the professional and core colleges. Alternative models should be considered that maximize the strengths of the model of admission to the university, and, at the same time, mitigate the lack of real options for some students which is inherent in current enrollment limitations. Continued attention must be given to the quality of academic advising. In particular, students should be advised to consider more than 1 choice in their selection of a major.

4.3 - The configuration of courses offered as related to the curriculum of a particular program or unit, as well as of the entire university, must be reviewed in the context of the R^3 principles, platforms, and planning heuristics.

4.4 - Change to a semester calendar may serve as a catalyst for streamlining course offerings and enhancing their coherence. The University should also employ sophisticated communication technologies to optimize the use of Michigan's total higher education and research capabilities through increased inter-institutional collaboration.

4.5 - The enhancement of the quality and efficacy of undergraduate education (CRUE), the revitalization of lifelong education (PLUS); and the pending reviews of graduate and research programs (CORRAGE) and administrative management and program support (AMPS) must be reasonably accommodated within R^3 and must be supported as well by the plans developed by each unit beginning in 1988-89.

4.6 - Enrollment limitation must be a management strategy for those programs where quality is being adversely impacted due to a heavy student pressure.

4.7 - The placement procedures for writing courses should be reviewed to assure that they have kept pace with the overall improvement in the quality of the freshman class.

4.8 - The colleges should improve their graduate student complements to extend instructional capacity and to enhance the preparation of graduate students as future teachers and scholars.

4.9 - The colleges must also enhance their overall instructional outputs by looking at alternative teaching models, including appropriate and effective section size; utilization of all faculty supported on the General Fund; and new educational technologies.

5. Matters of Tuition and Fees and Charging Structures

5.1 - Differential tuition rates continue to be widely regarded as incompatible with the MSU mission. However, the charging of special fees if a program is high in cost, demand, and potential future earnings is worthy of exploration, as are options for the structure of tuition and fees.

5.2 - Special use fees should also be considered (e.g., laboratory, placement, recreation).

5.3 - The relationship of student fees and tuition with options for different rate levels and structures should be clarified (i.e., equalization of rate structures between lower and upper division, transportation and recreational fees attached to housing rates, additional fees of a general nature, student health fee subsidy for some Counseling Center activities, laboratory fees, admissions and surcharge conditions).

5.4 - Changes in charging structures should closely associate costs with the beneficiary. Fee options related to the use of facilities by non-academic users, including intramural use, service fees for billing purposes, special events fees to cover public safety and parking costs, the appropriate thresholds for direct payment vouchers, and the optimum levels of "free" walk-through activity, would all benefit from investigation.

5.5 - There are options for administrative overhead which should be considered (i.e., general overhead fee for support service units, use of overhead concept to support academic computing investments).

5.6 - Indirect cost-recovery options should attempt to capture more indirect cost revenues without disproportionately impacting the competitive position of grant and contract activity. There are different options to be considered for returning indirect cost revenues to departments or colleges and the expectations associated with the use of these funds, a phased program for moving research facilitation grant percentages from 2 percent to 5 percent, possibilities related to appropriate policy position about what portion of Lifelong Education and outreach charges might be recovered through new overhead charges, and circumstances under which the waiver of overhead rates may be used as bargaining chips in contract/grant negotiations.

6. Matters of Support Services

6.1 - Appropriateness of expenditures should receive rigorous attention at the department level. Practices over time, as well as individual transactions, should be monitored with an eye toward appropriateness.

6.2 - Ways in which the primary academic enterprise can receive greater financial support from auxiliary activities should be explored. Particular attention should be given to possible Department of Intercollegiate Athletics subsidy of parking, sports information, public safety, and development activities directly related to athletics. Options for Development Fund relief to the General Fund and the MSU Foundation assistance in retiring the Capital Campaign debt should be considered also.

6.3 - Rates for internal services should not be increased significantly unless special cases can be made that such increases are necessary to preserve the ability to meet the University's academic mission.

6.4 - Internal Audit has imposed a growing set of criteria and costs on academic units, particularly in the data

processing area. The cost/benefit relationship of these approaches should be carefully reviewed. The premises underpinning acceptable levels of risk should be specified.

6.5 - The pricing standards used in the support areas should be carefully reviewed. Competitive bids for outside-contracted services may be efficient as well as effective.

6.6 - Efficiency in support services should not be achieved at the cost of lost academic effectiveness.

6.7 - The consolidation and coordination of technical and specialty shops across academic areas may enhance effectiveness and save money.

6.8 - The support operations of the University should be streamlined by requiring fewer signatures and fewer forms.

6.9 - Greater opportunities for student employment should be created.

6.10 - To assure academic capacity, the SS&E budgets for all colleges should be reviewed to assure that the optimal complement of faculty is properly supported. However, in transition and in order to meet other commitments to faculty and staff already in place, some short-term reductions in SS&E may be necessary.

6.11 - The decentralization of services should be reviewed carefully with a view to eliminating redundancy while maintaining effectiveness and to providing viable central resources for the entire University.

6.12 - Work simplification should be pursued as a streamlining of regular functions. Paper flow for personnel matters and legal requirements should be reviewed.

6.13 - The management of the new Breslin Student Events Center should be structured to support academic and student programming as well as intercollegiate athletic needs.

7. Matters of Libraries and Academic Computing

7.1 - The Library budget should be preserved but scrutinized, as all budgets are to be, for additional efficiencies. However, the purchasing power of the book fund should be protected.

7.2 - While there is general support for protecting academic computing resources, there is less agreement on an appropriate balance between central and decentralized facilities and the relationship of academic and administrative computing resources. For example, large reductions in the colleges will affect their ability to support decentralized computing and to do faculty set-ups. How much of a reduction should result from protecting the MSU Computer Laboratory requires careful consideration.

One should be cautious in reviewing this list because individual items may result merely in small savings and because no one item is sufficient to address the magnitude of the budget problem. However, even small actions cumulatively help to create a mind set that is essential for needed change at Michigan State University. Further discussion will identify those items that are reasonable to pursue and will identify additional items that have continued to emerge since the compilation of this list.

In overview, through R^3 we must rely on thorough and objective analysis of data, in the context of both relative internal positions and of national peer groups. Although organizational shifts and redefinition of functions may be necessary, humane and professional treatment of the University's employees is a fundamental commitment. Results must not unduly hinder units and programs that have been both effective and efficient. Refocusing, rebalancing, and refining

must underscore that access is meaningful only if it is access to appropriate programs of high quality. R^3 must consider the many dimensions of the University and try to achieve a proper balance among teaching, research, and service, as well as promoting synergy among them. A flexible university with increased capacity to respond to changing directions of knowledge and societal needs must be the result as Michigan State University is reconfigured to meet the challenges of the 1990s.

Attachment D

University Goals, Mission Statement, and General Fund Budget Planning Principles

University Goals and Mission

As a set, goals provide an intermediate definition of the University's mission, recognize significant environmental constraints and opportunities, and serve as a benchmark against which Michigan State University may continually assess itself. Flowing from the Mission Statement (included as Appendix I), the developing list of University Goals establishes the directions that apply broadly to the University as a whole. They are designed to guide our activities and efforts both for the short- and the long-term. The set of University Goals, developed in 1984-85 through extensive consultation with faculty, staff, and students, is included as Appendix II. Academic goals are listed first to emphasize their priority; otherwise, there is no intention to rank categories or to rank goals within the categories. The R^3 dialogue will continue to reassess this intermediate definition of the University mission and derive from it a broad set of principles as well as a more particular set of platforms to frame the refocusing, rebalancing, and refining of Michigan State University.

Departments, schools, and colleges or other Major Administrative Units (MAUs) must continue to define their programs and develop plans within the context of University Goals. Flowing from the Goals are parameters and principles that are the basic assumptions that also guide and shape University- and unit-level planning. These include:

- Michigan State University is committed to excellence in academic programs.
- High quality research must underpin scholarly teaching and public service.
- Academic programs are matters about which actions are initiated primarily by the faculty, departments, schools, and colleges.
- Each individual faculty and staff member has the right and obligation to contribute fully to the mission and goals of the University.
- The University is committed to a strong, effective tenure system that protects academic freedom and enhances academic excellence and responsibility.
- The University is committed to equal opportunity, nondiscrimination, and affirmative action.
- In addition to the expansion or elimination of positions and programs, there are a variety of options to consider in instruction, research, and public service models to reorder priorities and emphases (e.g., reallocation of individual faculty and of effort of current personnel).

Budget Planning

As a framework for the development of University budgets, a set of General Fund budget planning principles is included as Appendix III. Consistent with these principles and assumptions, the following all-University programmatic priorities were established in both the 1988-89 and 1989-90 Budget Requests:

- Faculty salaries and graduate assistant stipends at competitive levels
- Information technology with particular priorities to include computer literacy, critical research tools and linkage, outreach and library networking, the student information system, and administrative information requirements
- Instructional and research equipment with particular priorities to include the areas of molecular biology, materials science, plant science, communication, human and animal health programs
- Undergraduate education with particular priority to include programmatic initiatives in critical reasoning, effective oral and written communication, the international community, racial, ethnic and gender awareness, and qualitative and quantitative inquiry skills
- Graduate education, research, economic development, and outreach to include particular target areas of graduate student recruitment and retention with special emphasis on minority representation; doctoral enrollments within the College of Business; enhancing support for economic development and outreach including reorganization of lifelong education programs and associated programs in western Michigan; modernizing research equipment and facilities; support of National Science Foundation initiatives in manufacturing materials, and biotechnology and nuclear sciences
- Faculty recruitment and retention in key areas and among under-represented groups, and to obtain early access to declining applicant pools of minority Ph.D.s and doctoral graduates in selected areas such as the sciences and engineering

The 1988-89 and 1989-90 Budget Requests contributed to the process of refocusing, rebalancing, and refining the University by making possible the maintenance of a competitive edge so that Michigan State University can deliver the full potential of a land-grant/AAU university to the citizens of Michigan; develop programs that move the University forward in its ability to respond to current needs while positioning itself for future challenges; and counter the effects of inflation which, if not addressed effectively, will stall forward progress.

Appendix I. Mission Statement

Michigan State University holds a unique position in the state's educational system. As a respected research and teaching university, it is committed to intellectual leadership, and to excellence in both developing new knowledge and conveying that knowledge to its students and to the public. And as a pioneer land-grant institution, Michigan State University strives to discover practical uses for theoretical knowledge, and to speed the diffusion of information to residents of the state, the nation, and the world. In fostering both research and its application, this university will continue to be a catalyst for positive intellectual, social, and technological change.

Founded in 1855 as an autonomous public institution of higher learning by and for the citizens of Michigan, this institution was in 1863 designated the beneficiary of the Morrill Act endowment. It became one of the earliest land-grant institutions in the United States. Since 1863, Michigan State has evolved into an internationally-esteemed university, offering a comprehensive spectrum of programs and attracting gifted professors, staff members, and students. The university seeks excellence in all programs and activities, and this challenge for high achievement creates a dynamic atmosphere. At Michigan State University, instruction, research, and public service are integrated to make the institution an innovative, responsible public resource.

As the only land-grant institution in the state, Michigan State University is committed to providing equal educational opportunity to all qualified applicants; to extending knowledge to all people in the state; and to melding professional and technical instruction with quality liberal education; to expanding knowledge as an end in itself as well as on behalf of society; to emphasizing the applications of information; and to contributing to the understanding and the solution of significant societal problems. Michigan State University's adherence to academic freedom and open scholarly inquiry supports these essential academic functions.

The university's land-grant and service mission first originated in the areas of agriculture and the mechanic arts. While these emphases remain essential to the purposes of Michigan State, the land-grant commitment now encompasses fields such as health, human relations, business, communication, education, and government, and extends to urban and international settings. The evolution of this mission reflects the increasing complexity and cultural diversity of society, the world's greater interdependence, changes in both state and national economy, and the explosive growth of knowledge, technology, and communications. Just as the focus on agriculture and the mechanic arts was appropriate when Michigan State University was founded, the wide range of instructional, research, and public service commitments that now characterize this university is essential today.

By 1964, the instruction, research, and public service activities at Michigan State University had achieved the high level of excellence necessary for membership in the Association of American Universities (AAU). Innovation and leadership in three critical areas, and in the extension of knowledge to the state, the nation, and the world, are the hallmarks of this university. An excellent and diverse faculty insures the superior quality of academic programs, and contributes to the expansion of knowledge and its application in the public interest.

Research and scholarship help preserve and enrich cultural and creative traditions, as well as contribute to the formulation of new knowledge. Graduate programs draw upon and support faculty research, extend the benefits of research, and educate students for professional careers. The established national and international reputation of the university is based upon the quality and distinctiveness of the research and scholarly activity of its faculty and students.

Research and public service are mutually enriching activities for both faculty and students, and contribute significantly to the high quality of both undergraduate and graduate instructional programs. Through research, faculty members enhance the scope and effectiveness of their teaching. Through public service, faculty validate past research findings and identify the need for new research and for modifications of curricula. Participating with faculty in research and service projects provides students with unique learning opportunities, and consequently improves the quality of both graduate and undergraduate education.

At the undergraduate level, the university offers strong, comprehensive programs in the liberal arts and sciences and in major professional areas which include a significant general education component. Michigan State University provides opportunities for students of varying interests, abilities, backgrounds, and expectations. Underlying all educational programs is the belief that an educated person is one who becomes an effective and productive citizen. Such a person contributes to society intellectually, through analytical abilities and in the insightful use of knowledge; economically, through productive application of skills; socially, through an understanding and appreciation of the world and for individual and group beliefs and traditions; ethically, through sensitivity and faithfulness to examined values; and politically, through the use of reason in affairs of state. Mindful of such purposes, Michigan State University is committed to graduating educated men and women with diverse backgrounds who are active learners, ready to assume the responsibilities of leadership wherever opportunities arise.

Michigan State University fulfills the fundamental purposes of all major institutions of higher education: to seek, to teach, and to preserve knowledge. As a land-grant institution, this university meets these objectives in all its formal and informal educational programs, in basic and applied research, and in public service. As an AAU institution, this university meets these commitments through its instructional and research programs. Through the excellence of its academic programs, the strength of its support services, and the range of its student activities, the university provides opportunities for the fullest possible development of the potential of each student and each citizen served, and enhances the quality of life and the economic viability of Michigan. Education of its citizens is the state's best investment in its future. Michigan State University has honored, and will continue to honor, this public trust. .

Approved MSU Board of Trustees
June 24-25, 1982

Appendix II. University Goals*

1. Academic Goals

1.1 Provide comprehensive undergraduate programs, with a strong component of general and liberal education, and provide selected, high quality graduate and graduate-professional degree programs consistent with the mission of Michigan State University.

1.2 Recruit and retain outstanding, nationally competitive faculty in the disciplines and the professions.

1.3 Promote and facilitate faculty research and other creative and scholarly activities at a level consistent with the University's status as an internationally recognized research institution and its role as a premier land-grant university.

1.4 Apply consistently the highest academic and professional standards in the recruitment, retention, and reward of faculty members.

1.5 Promote faculty strength and interests by providing opportunities for professional development, providing avenues for the development of interdisciplinary programs and joint research projects, attracting concentrations of nationally competitive faculty in critical areas, and increasing faculty salaries to levels competitive with other public Big Ten and AAU universities.

1.6 Support and promote selected areas of academic excellence that have--or could develop--national and international stature.

1.7 Insure that academic programs in fields which are consistent with Michigan State University's contemporary land-grant mission and status as an AAU institution meet professional certification and accreditation requirements.

1.8 Support and promote excellent interdisciplinary programs consistent with the University's mission.

1.9 Support and promote economic development in the state and nation by cooperating with public and private enterprise and by recruiting and retaining nationally competitive research faculty in areas critical to economic and social development.

1.10 Explore new models for bringing University expertise into service in support of Michigan's economic and social development and diversification.

1.11 Support and expand Michigan State University's role as an international university through such means as grants, contracts, and agreements with other universities, exchanges and overseas academic programs, and the inclusion of international, cross-cultural, and multi-cultural subject matter within the undergraduate program.

1.12 Provide effective public service and lifelong education to the people of the community, the region, the state, and establish for all units of the University a responsibility to engage in academically sound public service.

1.13 Support an effective tenure system that protects academic freedom and enhances academic excellence and responsibility.

1.14 Preserve an intellectual and professional climate in which academic freedom can flourish.

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*Note: *The 1984-85 statement of University Goals was the result of extensive consultation with faculty, staff, students receiving review through the academic governance system during that period of time. Similar discussions will be reinitiated as the refocusing, rebalancing, and refining of the University develops.*

1.15 Provide library facilities, services, and holdings that will serve the University's teaching, learning, research, and public service activities well.

1.16 Provide computer facilities and services to serve the University's teaching and research needs, promote and support the acquisition and use of up-to-date instructional technology, and promote the development of communications technology to serve the University's teaching, research, and service programs.

1.17 Promote and support the development of modern and technologically sophisticated teaching and research facilities and institute a system for the flexible deployment of space, equipment, labs, and support personnel.

1.18 Sustain and enrich the artistic, innovative, and creative environment of the campus and community.

2. Academic Support Goals

2.1 Provide effective academic and career advising, counseling, financial aid, recreational, housing, and other student development and service programs which help students achieve their academic and personal goals and which enhance the quality of student life.

2.2 Sustain current levels of enrollment through effective in-state recruitment and increased out-of- state recruitment, with special attention at both the graduate and undergraduate levels to high achieving students, minority students, and (within the capacity of the University) foreign students.

2.3 Maintain levels of undergraduate financial aid sufficient to provide access to Michigan State University for all qualified applicants who demonstrate need. Improve graduate financial support in order to remain nationally and internationally competitive for graduate students.

2.4 Promote effective systems of campus governance that provide meaningful and cost effective faculty and student involvement in administrative decisions.

2.5 Provide the support services necessary to recruit and retain qualified faculty, students, and staff and contribute to learning, living, and working at Michigan State University.

2.6 Recruit and retain a talented staff of professionals and administrators and attract and retain competent personnel throughout the support services by providing a challenging and quality work environment and a structure of compensation commensurate with qualifications and responsibilities.

2.7 Maintain financial, auditing, records, safety, and other support services that provide policy, procedural, and legal accountability and assure the academic and financial integrity and reliability of the institution.

2.8 Provide computer and communication capability and information services to meet the administrative and operational needs of the institution.

2.9 Maintain the properties, physical plant, grounds, and utilities systems of the University at a level of development, reliability, and efficiency that enables the University to fulfill its mission and goals in a cost-effective manner.

2.10 Increase the fund-raising capability and activities of the University consistent with Michigan State University's mission and program priorities.

2.11 Interpret the nature, purposes, work, circumstances, and needs of the University to the public and its legislative representatives.

2.12 Develop a comprehensive alumni program that reflects the academic, cultural, professional, and athletic interests of Michigan State University alumni and friends and that generates alumni support and commitment for the University.

3. Athletic and Cultural Goals

3.1 Support an intercollegiate athletic program which is consistently competitive in the Big Ten, which upholds the University's commitment to student athletes, and which generates interest, affiliation, and commitment from MSU faculty, students, alumni, and friends.

3.2 Provide sophisticated cultural and arts programming to serve the interests and needs of the University community, including its students, and of mid-Michigan as well.

4. Planning Goals

4.1 Institute analyses throughout the University's strategic long-range planning and operations that will improve program quality and cost effectiveness and promote acceptance of the systematic evaluation of University programs as an established institutional practice.

4.2 Undertake a continuing assessment of the relationship between the University's financial resources and its expenditures; review and modify, as necessary, plans for bringing resources and expenditures into balance.

4.3 Advocate and support action by the state executive office and the legislature to establish an equitable, reasonable, and stable funding plan for higher education that would permit effective long-range planning by public colleges and universities.

4.4 Assess planned program changes and evaluate the effectiveness of goal-directed performance by all units of the University.

Appendix III. General Fund Budget Principles

A set of principles guides the development of the annual General Fund budget. While all such principles may not be strictly implemented in any one year, adherence to them is critical to the long-term health of the institution. The following principles were developed and discussed during the 1987-88 budget consultation process and utilized in each subsequent year:

TOTAL BUDGET

-- The budget process should result in a financial plan in which estimated revenues balance anticipated expenditures.

-- Revenues and expenditures should be balanced in a manner such that the budget process for subsequent years will begin with the ongoing revenue base equal to the ongoing expenditure base prior to the incorporation of new commitments.

TUITION AND FINANCIAL AID

-- The tuition and fee structure should reflect the needs of this institution as generally defined by mission, educational costs, and equity considerations. Special fees should be considered only in the context of overarching institutional needs and the pattern of fees at peer institutions.

-- Tuition and fee rates should be both consistent with the mission of this institution and considered in the context of the overall cost of attending Michigan State University.

-- Any increase in resident undergraduate student tuition and fees must be accompanied by an increase in student aid so that access is not diminished.

-- Scholarship and fellowship funds should be augmented each year in order to maintain the ability to attract and retain a diverse student body.

SALARIES

-- Faculty and academic staff salaries must be incorporated at the projected rate of inflation plus a factor intended to improve Michigan State University's standing when compared with peer institutions.

-- Faculty salaries in select areas affected by severe external forces should be addressed through market-related funding in addition to funding allocated through the normal raise process.

-- Graduate Assistant stipends should be incorporated at the projected rate of inflation plus a factor intended to improve Michigan State University's standing when compared with peer institutions.

-- Graduate Assistant stipends should be adjusted in a manner that offsets the impact of graduate tuition and fee rate adjustments.

-- Support-staff salary adjustments must recognize concerns for inflation as well as market concerns.

PROGRAM ALLOCATIONS

-- Commitments made as part of the prior-year budget and known campus-wide obligations will be included at cost.

-- Program needs may be funded by the allocation of new resources or reallocation of existing budgets.

-- Specific strategic program initiatives should be consistent with the annual Budget Request and should be equivalent to between 1 and 3 percent of the continuing budget.

-- Commitments made for major university strategic initiatives should be considered as the first draw upon program funds.

-- Commitments to the recurring costs of internally financed capital projects must be considered as part of the program allocation process.

-- Provisions should be made to address deferred maintenance as part of the formal budget planning process and should be incremented for inflation.

-- Provisions for building alterations and improvements beyond the resources provided by the state should be part of the formal budget planning process and should be incremented for inflation.

-- Supplies, services, and equipment allocations should be provided at the rate of inflation.

Attachment E

Budget and Planning Accomplishments and Events: The R^3 Process

The R^3 Initiation and Instrumentation Process

The process by which Michigan State University initiates its "Refocusing, Rebalancing, and Refining" (R^3) effort is dynamic and multi-year in nature. Short-term uncertainties, coupled with the complexity and comprehensiveness of the endeavor, require continuing adjustment of the planning trajectory. Particular actions have been accomplished already; a variety of events are recognized as yet to occur; other activities have yet to be identified. To gain a sense of both progress and process within the evolving interactions of refocusing, rebalancing, and refining it is helpful to view accomplishments and planning events in juxtaposition to the usual budget development process. *Budget cycle events are noted in italics.*

Accomplishments During 1988--R^3 is initiated and becomes established:

- Key issues that should be considered during R^3 were identified, along with the major parameters for program adjustment required in 1988-89, given a wide range of reallocation targets--the first phase of the normal Academic Program Planning and Review process.
- The 1988-89 budget parameters were reviewed with the Council of Deans, the University Committee on Faculty Affairs, and various student groups.
- "The Refocusing, Rebalancing, and Refining of Michigan State University" was released to the Council of Deans. Discussions with chairpersons and directors were initiated following the release to all faculty, and executive management and leaders of student groups.
- Tentative 1988-89 reallocation targets were established to guide preliminary planning discussions with chairpersons, directors, and appropriate academic governance groups.
- Academic Council, Academic Senate, the Board of Trustees, and University Committee of Faculty Affairs discussed the R^3 process.
- All academic units planned to meet the 5 percent across-the-University reallocation target.
- Final CRUE report (Opportunities for Renewal) was released.
- CRUE implementation reports, the first 3 of a series, were drafted by the Office of the Provost and released to the University community.
- The $160M Capital Campaign was kicked off and passed the halfway point.
- A grant application was submitted to the Kellogg Foundation for a major lifelong education thrust. The grant, in excess of $10M, was awarded requiring University matching funds.
- Like-groupings, or clusters, of support service functions met with academic administrators to review priorities, consequences of additional reduction targets, and possibilities for cost containment or cost avoidance.
- All Support Service units planned for 5 percent across-the-University reduction.
- The Provost held discussions with each dean concerning the college plans and the implications of other units' plans for cooperative and collaborative actions.
- Each academic and support service Major Administrative Unit (MAU) summarized actions taken to implement 1988-89 reallocation and recovery targets.

- Administrators' Council met to begin a two-part discussion on MSU in the year 2000.
- Seminar on Managing For Excellence was initiated by the Women's Advisory Council to the Vice President For Finance and Operations.
- Options for revenue enhancements, including fees, were requested from Deans and Separately Reporting Directors.
- Council of Deans retreated to discuss a "vision of the University."

R^3 Related Events to Occur during 1989 will include:

- Revised R^3 statement release to the University community, including appropriate academic governance committees and student government groups.
- Completion of the Semester Study Report, review by Academic Governance and followed by appropriate action.
- The commissioning of the review of graduate education and research (CORRAGE).
- The specification of an action plan for turning the LEP proposal and Kellogg Grant funds into a more specific lifelong university strategy (PLUS).
- The formulation of an approach to review and take action to simplify the administrative management of the University, and to enhance the efficiency and effectiveness of the support enterprise (AMPS).
- The proposal of a new approach to pluralism and institutional diversity (PAIDEIA).
- The transportation and parking study will be completed and recommendations studied for appropriate action.
- Each academic and support service Major Administrative Unit will specify preliminary thinking on 1989-90, 1990-91, and 1991-92 additional 10 percent and 15 percent reconfiguration targets.
- Administrators' Council will meet in part II of a discussion of MSU in the year 2000.
- The President will review, with the Executive Advisory Council, the utilization of University resources.
- Review of University Goals initiated to further derive a set of enduring principles and a set of measurable accomplishments to frame R^3.
- Preliminary planning targets will be established for the units in a multi-year planning horizon.
- Colleges/MAUs will establish planning targets for departments/schools/divisions.
- *Executive Budget Recommendation for 1989-90 presented by Governor Blanchard.*
- *1989 Legislative Hearings for the House and the Senate.*
- *Internal Budget Consultation.*
- The Offices of the Provost and the Vice President for Finance and Operations will initiate discussions with each Major Administrative Unit (MAU) executive concerning MAU plans and the implications of other units' plans for cooperative and collaborative efforts.
- The Board of Trustees will retreat for a workshop on University finances.
- *Preliminary 1990-91 Operating and Capital Request Formulated. (June, 1989)*
- *State Appropriation Passed. (July, 1989)*

- *Administrative Decision on 1989-90 Budget. (June-July 1989)*
- *Board of Trustees act on 1989-90 Budget Guidelines. (July, 1989)*
- *Administrative Decision on 1990-91 Budget Request. (August, 1989)*
- *Board of Trustees act on 1989-90 Budget and on the 1990-91 Budget Request. (October, 1989)*
- *Executive Budget Recommendation for 1990-91. (January or February, 1990)*